

A COMPARISON OF THE SELF-REPORT AND THE INFERRED SELF-CONCEPT
OF SIXTH GRADE PUERTO RICAN CHILDREN OF LOW AND
MIDDLE SOCIO-ECONOMIC STATUS

By

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Abstract of Dissertation Presented to the Graduate Council
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The purpose of this study was to investigate the relationship of the self-report and the inferred self-concept with regard to socio-economic status (SES). It focused on two aspects of the same problem area. First, the relationship between the self-concept and SES and second, the relationship between the two kinds of measures used in studying this aspect of the individual's phenomenal field: the self-report and the inferred self-concept.

Four hypotheses were tested:

1. There are no significant differences between the self-report scores of children of low SES and children of middle SES.
2. There are no significant differences between the inferred self-concept scores of children of low SES and children of middle SES.
3. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of low SES.

4. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of middle SES.

The sample was drawn from a population of six graders from public schools in the Metropolitan Area of San Juan, Puerto Rico. These students were mostly segregated by social class. Eighty children (40 of low SES and 40 of middle SES) were selected from that population. In each group, 20 were boys and 20 were girls.

Two measures of the self were obtained from each subject: a self-report (Coopersmith's Self-Esteem Inventory) and an inferred self-concept measure based on a picture story test. The subjects' responses to these measures were compared within and across SES groups.

The measures were highly reliable. The KR-20's of the Spanish translation of the Coopersmith's Self-Esteem Inventory were found to be .84, .82, and .85 for low, middle, and all subjects respectively. The Pearson product-moment coefficients between raters for the general score of the inferred self-concept measure ranged from .88 to .94. The median correlation between raters for each area were General Self .835, Social Self-peers .850, School-academic .590, and Home-parents .655.

An examination of the standardized discriminant function coefficients yielded in the data analysis indicated that the discrimination of the two SES groups was mostly in terms of three subscores: General Self and Social Self-peers of the self-report and the General Self of the inferred self-concept measure.

The results of the discriminant analysis yielded values for the self-report that were significant at the .001 level. Thus, the first

hypothesis was rejected. In the case of the inferred self-concept, the values were not significant at the minimum level established for this study ($p < .05$). Therefore, the second hypothesis was accepted. The findings associated with hypotheses 1 and 2 appear to partially support the theoretical position that children of low SES tend to have lower self-concepts than middle SES children.

The correlation coefficients between the self-report and the inferred self-concept were for all subjects .2822 ($p < .01$), low SES .3134 ($p < .05$), and middle SES .0715 (not significant). Thus, the third hypothesis was rejected and the fourth was accepted.

Although the correlation coefficients for all the subjects and for the low SES were significant, they can be considered very low and without too much meaning. Therefore, these results are consistent with previous research that has found that the self-report and the inferred self-concept are different aspects of the self.

CHAPTER I INTRODUCTION

Purpose of the Study

The purpose of this study was to investigate the relationship of the self-report and inferred self-concept with regard to socio-economic status (SES). To accomplish this, a sample of sixth grade Puerto Rican children from the Metropolitan Area of San Juan, Puerto Rico were studied. Half of them were of low SES and the other half of middle SES. Two measures of the self-concept were obtained from each subject: a self-report and an inferred self-concept. The subject's responses to these measures were compared within and across SES Groups.

Statement of the Problem

It is generally indicated in the literature that children of low SES characteristically have low self-concepts (Clark, 1963; Goldberg, 1963; Deutsch, 1963; Hawk, 1967; Krugman, 1961; Morlan and Ramonda, 1968; Passow, 1970). It is assumed that low SES is associated with deprivation which develops feelings of inadequacy and lack of worth. Being deprived in many of their basic needs, low SES children are seen as characterized by a denigration of their own potential as persons and as learners.

Although it is generally accepted that low SES children have lower self-concepts than those of middle SES, the research reveals no such overall agreement. Some studies suggest that there is a difference in the expected direction (Long and Henderson, 1968; Rosenberg, 1965;

Samuels, 1973; Wylie, 1963). Other studies do not report significant differences (Coopersmith, 1967; Kerensky, 1967). There are even studies suggesting that the self-concepts of low SES children are more positive than those of middle SES children (Soares and Soares, 1969; Trowbridge, 1970, 1972).

The reasons for these inconsistencies seem to be varied and diverse. Zirkel and Moses (1971) found the same problem in the research of self-concept and ethnic group membership. They indicated that some of these inconsistencies "may be attributed to differences in definitions, instruments, research designs, age groups, regions, times and the individuality of human beings which defies categorization" (p. 254).

Most of the research done on the relationship between the self-concept and SES has used the self-report as a measure of the self-concept (Crescioni, 1965; Coopersmith, 1967; Kerensky, 1967; Samuels, 1973; Soares and Soares, 1969; Trowbridge, 1970, 1972; Wylie, 1963). However, the self-report has been severely criticized by some researchers (Combs and Soper, 1957; Combs *et al.*, 1963; Cronbach, 1970; Wylie, 1974). It relies on the individual's own report of his behavior, feelings and other beliefs based on the assumption that the person is willing and able to give such information about himself. However, there is sufficient reason to challenge this assumption.

Certain techniques have been devised to overcome the limitations presented by the self-report. They are largely independent of the subject's self-insight and of his willingness to reveal himself and are generally called projective or inferential techniques. The basic assumption underlying their use is that the subject's responses are indicators

of his own view of the world, his personality structure, his needs, feelings and perceptions.

Some researchers have used the inferential techniques in studying the self-concept (Combs, 1969; Combs *et al.*, 1963; Graves, 1972; Long and Henderson, 1968; Parker, 1964; Pendergrass, 1971; Walsh, 1956; Ziller, 1973). However, they have been rarely used in studying the relationship between the self-concept and SES. Long and Henderson (1968) used a non-verbal projective technique in studying this relationship and, to our knowledge, this is the only study reported in this area that has used a non-verbal technique. Coopersmith (1967) used in his study the traditional projective techniques known as Rorschach and Thematic Apperception Test, in addition to a self-report. However, the use of these techniques in making inferences about the self-concept of the children studied is not clearly discussed in his book. McDaniel (1967) used an "inferred self-concept scale" in her study of low SES children but the items included describe behaviors rather than beliefs about the self.

Combs *et al.* (1971) pointed out the difference between the self-concept and the self-report.

The self-concept is what a person perceives himself to be; it is what he believes about himself. The self-report, on the other hand, is what a person is willing or able to divulge, or what he can be tricked into saying about himself when asked to do so. The self-report is a behavior; the self-concept is a system of beliefs. Clearly, these matters are not the same. (p. 52)

If the self-concept is a system of beliefs, then it should be measured by an inferential technique, otherwise what is obtained is probably a distorted picture of that system. The inconsistencies of the findings in studies that relate SES and self-concept might be attributed, in part, to the fact that most of them have used self-reports.

Theoretical Foundations

Perceptual or phenomenological psychology provided the theoretical basis for this study. It focuses on the individual's inner core of feelings and beliefs and how these inner forces influence his behavior. A person's behavior is considered a function of all those perceptions existing for him at a given moment (Combs and Snygg, 1959; Combs *et al.*, 1971). In other words, his behavior can be described as the result of how he seems himself, how he views the world about him and the inter-relationship of these two (Combs and Snygg, 1959).

The word "perception" is used by phenomenologists as synonymous with meaning, that is, it refers to "the particular significance of an event for the person experiencing it" (Combs *et al.*, 1971, p. 25). The field of meanings existing for the individual at a given moment which directly effects his behavior is called his perceptual or phenomenal field.

To each individual his phenomenal field is reality. It includes all the universe of which he is aware; it includes physical entities, abstract concepts, emotions, feelings and so forth. The ways things seem to us are accepted as the ways things really are. When others perceive things differently, we are likely to say they are in error or out of touch with reality. Thus, reality for each person is what it seems to be for him.

Of all the perceptions that exist for an individual, none are as important as those he has about himself. All perceptions are determinants of behavior, but meanings related to the self are much more basic than those in which the individual is less involved and are therefore more potent in determining his behavior. Phenomenologists assume that each

individual has an organization or Gestalt of the ways he perceives himself that is called the phenomenal self. Combs and Snygg (1959) defined this as

...the organization or pattern of all those [concepts of self] which the individual refers to as "I" or "me". It is himself from his own point of view. The phenomenal self is not a mere conglomeration or addition of isolated concepts of self, but a patterned interrelationship or Gestalt of all these. It is the individual as he seems from his own vantage point. (p. 276)

The perceptions of self vary in their importance or extent to which they influence behavior. Many perceptions of self have little or no immediate value to us in specific situations. For instance, the belief an adolescent has about his ability to play piano might not influence his performance in school subject matter nor his relations at home. On the other hand, there are some perceptions about self that influence a great deal of human behavior and tend to be stable and consistent. Combs and Snygg (1959) referred to this part of the phenomenal self as the self-concept. The degree of stability and consistency that the self-concept has gives predictability to the individual's behavior.

What man believes about himself affects almost all his behavior (Combs and Snygg, 1959; Hawk, 1967; Rogers, 1951). It affects not only his relationship to himself, but also his relations with others and the rest of the world. A realistic, positive self-concept is regarded by many psychotherapists as the basic foundation of a healthy adjustment. Persons who see themselves as unliked, unacceptable, tend to either avoid companionship, fight with others, or to overcompensate by attempting to prove their superiority over others.

Many learning problems are associated with negative self-concepts (Combs and Snygg, 1959; Purkey, 1970). For instance, many children who

cannot learn to read or who cannot learn mathematics see themselves as unable to do these tasks. Research clearly indicates a "persistent and significant relationship between the self-concept and academic achievement" (Purkey, 1970, p. 15).

The self-concept also seems to be related to vocational choice. Super *et al.* (1957) proposed that preparing for and choosing an occupation essentially involves a process of developing and implementing the self-concept.

The importance of having a positive self-concept can be summarized as follows:

Having a positive view of self is much like having money in the bank. It provides a kind of security that permits the owner a freedom he could not have otherwise. With a positive view of self one can risk taking chances; one does not have to be afraid of what is new and different. A sturdy ship can venture farther from port. Just so, an adequate person can launch himself without fear into the new, the untried and the unknown. This permits him to be creative, original and spontaneous. What is more, he can afford to be generous, to give of himself freely or to become personally involved in events. Feeling he is much more, he has so much more to give. (Combs, 1962, p. 53)

A person develops his self-concept from the kinds of experiences he has with life. The self-concept is mainly a social product; it results from the evaluative interaction of a given individual with others throughout his life (Combs and Snygg, 1959; Combs *et al.*, 1971; Rogers, 1951). If a child at an early age receives signs from his parents and others indicating that he is good, he will assimilate that picture of himself. If he receives signs from others that he is bad or unable, he will develop a negative self picture and his future behavior will be determined to a great extent by these preceptions. People develop perceptions of

being liked, wanted, acceptable and able from having been liked, wanted and accepted and from having been successful.

The present study then, deals with two aspects of the same problem area. First, the relationship of self-concept and SES and second, the relationship between the development of self and SES.

Operational Definitions

Certain terms should be defined as they were used in this study.

1. Low socio-economic status children--sixth graders who live in slums and low income housing projects in the Metropolitan Area of San Juan, Puerto Rico and attend mostly segregated public schools. Their families are classified in classes IV and V (lower, lower lower respectively) of Hollingshead's two factor index of social position.
2. Middle socio-economic status children--sixth graders who live in typical middle class urbanizations in the Metropolitan Area of San Juan, Puerto Rico and attend mostly segregated public schools. Their families are classified in class III (middle) of Hollingshead's two factor index of social position.
3. Self-report--an individual's self-description by means of a Spanish translation of the Coopersmith's Self-Esteem Inventory, Form A (CSEI).
4. Inferred self-concept--a description of how an individual sees himself made by a trained rater in terms of the basic areas of the self-concept included in the CSEI. This description

is based on data generated by a picture story test administered to the individual.

CHAPTER II REVIEW OF RELATED LITERATURE

Relationship Between the Self-Concept and Socio-Economic Status

Conceptual Literature

It is generally indicated in the literature that children of low SES are characterized by low self-concepts as compared to those of middle SES (Clark, 1963; Deutsch, 1963; Goldberg, 1963; Hawk, 1967; Krugman, 1961; Morlan and Ramonda, 1968; Passow, 1970). Their self-images usually reflect low self-esteem, self-deflation and self-depreciation.

Several reasons have been pointed out in explaining why children of low SES develop poor self-images as compared to those of middle SES. These explanations assume that the self-concept is mainly a social product, that is, that it results from an evaluative interaction of a given individual with others. It is hypothesized that the social experiences of children of low SES are different from those of middle SES and that these differences are reflected in the self-concepts. Although it is likely that the environment of the low SES child might have areas that allow for positive growth and that the environment of the middle SES child has features which might retard healthy development, it is assumed that the combination of circumstances in middle SES life is considerably more likely to provide opportunities for normal growth. On the contrary low SES conditions are assumed to have deleterious effects on child development (Deutsch, 1963).

Long and Henderson (1968) pointed out that social discrimination, broken homes and poor and crowded living conditions produce in the low SES children self-concepts which would tend to be negative and alienated from others. They added that as "a defense against the self-derogating effects of negative social experience" (p. 41), the low SES child tends to maintain an unrealistic conception of himself.

Middle-class children tend to live in larger and more luxurious houses located in more desirable neighborhoods and tend to receive material and cultural benefits that might lead them to believe that they are more worthy than others (Coopersmith, 1967; Ziller, 1973). Although a child's social position is experienced in the neighborhood and school rather than in the occupational context (Coopersmith, 1966), the children of higher SES families are more likely to have more "ego enhancing material reinforcements and social reinforcements" (Ziller, 1973, p. 20) than those of low SES families.

Children of low and middle SES not only differ in their home and neighborhood experiences but also in the experiences they generally have in school. Goldberg (1963) indicated that low SES children have few experiences at home which produce readiness for academic learning either intellectually or attitudinally. Thus, they have early difficulties in mastering the basic intellectual skills which school and society demand. This in turn leads to defeat and failure and the development of a negative self-image. This view of the influence of negative experiences in school on the self-concept of low SES children as opposed to middle SES children is also supported by Deutsch (1963) who said "The frustration inherent in not understanding, not succeeding, and not being stimulated in the school--

although being regulated by it, creates a basis for the further development of negative self-images and low evaluations of individual competencies" (p. 177).

Morlan and Ramonda (1968) pointed out that teachers may inadvertently reinforce the feelings of inadequacy of children of low SES through the use of the grading system. These children tend to compare themselves with others more privileged in class, and may see themselves as unsuccessful and thus unimportant. They also indicated that failure in school usually has repercussions at home. Instead of having a supportive reaction, the low SES child finds no understanding or acceptance at home.

Research Literature

Although there is a general agreement in the conceptual or theoretical literature that low SES children have lower self-concepts than middle SES children, the research literature presents inconsistent findings. The findings vary from no significant differences to significant differences in both directions, that is, some studies reveal lower self-concepts in the low SES children and others reveal lower self-concepts in the middle SES children.

Wylie (1963) reported a study in which 823 boys and girls in seventh, eighth, and ninth grades in a small highly industrialized town estimated their school work ability. These children were asked to compare themselves with their classmates in terms of ability to do school work. It was found that children of lower SES made more modest estimates of their abilities than children from higher SES levels. It was also found that white girls made more modest estimates of their ability than white boys. Wylie concluded that the findings of this study support the idea that

differences in cultural learning opportunities result in differences in self-concepts about intellectual abilities. However, she recognized that no cause-effect relationship was demonstrated by these correlational findings.

Rosenberg (1965) studied the self-image of over five-thousand high school students by means of a self-report. The data of this study suggested a positive, significant but weak relationship between self-image and social class.

In an extensive study of what he called "antecedents of self-esteem", Coopersmith (1967) considered the relationship between self-esteem and social class. He used a 50 item Self-Esteem Inventory (CSEI) to measure self-esteem from the perspective of the subject (self-report). Teachers rated subject's behavior presumed to be related to self-esteem through the use of a rating form. The items of these instruments were different. He also used the results of two projective techniques (Rorschach and TAT) that were administered to all the subjects (1,748). However the use of these techniques in making inferences about the self-esteem of the children studied is not clearly discussed in his book. A nonsignificant relationship was found between self-esteem and social class. The findings suggested that though subjects from upper and middle classes tend to report more positive self-attitudes than subjects in the lower class, the differences between classes were not large or regular. Coopersmith indicated that although subjects in the lower class are most likely to report lower self-esteem, there are almost as many persons in this class who report high esteem as low esteem.

Kerensky (1967) used CSEI to measure the reported self-concept of a sample of 452 randomly selected elementary pupils enrolled in grades

three through six in an inner-city setting in Michigan. His findings were consistent with Coopersmith's.

In a study reported by McDaniel (1967), 180 children (30 each in grades one through six) were rated by their teachers on a 30 item, five-point inferred self-scale. The students and the teacher were randomly selected from 16 public elementary schools receiving financial assistance under Title I of the 1965 Elementary and Secondary Education Act. There was an equal number of males and females in the sample of students. The analysis of the data revealed that the self-concept of the low SES child was scored as positive, whether the child was Anglo, Mexican-American, Negro; male or female; from a large family or from a small family; an oldest child or a non oldest child; or whether the child was in grade 1, 2, 3, 4, 5, or 6.

There are some limitations in this study that should be indicated. There is no clear evidence of the extent to which the teachers were trained in their task. Teachers might be defensive against claims of class discrimination in their ratings of the students. Only low SES children were used in this study and no other group was used as a standard of comparison. The items included in the scale answered by the teachers (inferred self-concept scale) described mostly behaviors rather than beliefs or perceptions and the self-concept is a system of preceptions and not a system of behaviors.

A different approach in measuring the self-concept was followed by Long and Henderson (1968). Instead of using a self-report, they used a non-verbal projective instrument. They found that low SES negro school beginners had lower self-esteem and less realistic self-concept for color

than the control group. They also found that the rating scales answered by teachers were in agreement with the self-esteem as revealed by the instrument administered to the children. A limitation of this study, that was recognized by the authors, is that one cannot separate the effects of race from the effects of poverty.

Long (1969) indicated that in other studies done with Henderson, using the same non-verbal projective instrument, she found a lower self-esteem for the lower class child in diverse cultures such as that of India, Barbados, and Urban Canada. Ziller (1973) reported that a re-analysis of the results of a study done in 1968 by Long *et al.* indicated that children of lower SES revealed lower self-esteem, as measured by the same non-verbal projective instrument.

Research intended to determine the direction and intensity of self-perceptions of "disadvantaged" children and comparing them with children who were "advantaged" was reported by Soares and Soares (1969). Both groups of children were living in segregated areas of the community, attending neighborhood schools and were in the middle and upper grades of elementary school. The subjects rated themselves in twenty pairs of bi-polar traits expressed in sentence form (a self-report). The data suggested that not only did the "disadvantaged" group indicate positive self-perceptions, but also that they had higher self-perceptions than the "advantaged" group. Soares and Soares interpreted these findings in terms of possible effects of desegregation on the development of the self-concept. "Disadvantaged" children were exposed only to other "disadvantaged" people in school as well as at home and their neighborhood. These children were satisfied with themselves since they were

functioning according to the teachers' and parents' expectations. On the other hand, parents and other adults may pressure the "advantaged" child more than they should, resulting in lower self-esteem even though positive.

Trowbridge (1970, 1972) reported two studies done in Iowa in which the CSEI was used in measuring the self-concept of large samples of elementary school children. The pupils were from mostly desegregated neighborhoods and schools as opposed to Soares and Soares' sample from segregated neighborhoods and schools. Both studies done by Trowbridge consistently revealed similar findings to those of Soares and Soares' study: a higher mean self-concept in the lower SES group than in the middle SES group. Black children were found to have higher self-concepts than white children. The density of population was also found to be significant; rural, small town children had higher self-concepts than urban or suburban children. The SES differences were found to be much greater than the race or density of population differences. The interaction variances were not significant in all cases suggesting that SES differences were important across both races and in both urban and rural areas. The self-concept was found to vary little by sex and appeared to decrease with age.

Samuels (1973) conducted a study on the self-concepts of low and middle class black and white kindergarten children attending a central school district in a New York City suburb. She used two different self-reports: one consisted of a set of 53 drawings of paired picture situations arranged to form a dichotomy (Clark U-scale); the other was a list of 14 dichotomous adjectives. The findings suggested that black

middle class children as a group had higher self-concepts than black lower class children in both tests. White middle class children had higher self-concepts than white lower class only on the pictorial test (Clark U-scale). No significant differences were found between the self-concepts of black and white children of the same social class.

Few studies in Puerto Rico have considered the relationship between the self-concept and the socio-economic status of the children. Crescioni (1965) reported a study done by a group of teachers participating in an Institute for Young Teachers in Deprived Areas. They developed and administered an inventory to a sample of 110 children: 60 from the fifth grade and 50 from the eleventh grade. The findings suggested that the self-image of the "disadvantaged" tended to be lower than that of the more "advantaged" child. It was also found that the self-image appeared to decrease with age, especially within the "disadvantaged" group.

In an anthropological study based on participant observation, Lewis (1966) found that, in general, poor people in Puerto Rico see themselves as inferior, dependent and impotent. Another study reported by Mussen and Beytagh (1968) used a projective technique (Picture Story Test) and found that Puerto Rican agricultural boys presented feelings of inadequacy and lack of self-confidence. However, none of these studies clearly establish a relationship between the self-concept and SES.

The distinction between the self-report and self-concept has been mentioned earlier. Because of its significance to the present study this distinction will be examined more closely.

Measurement of the Self-Concept

The Self-Report and Its Limitations

Combs and Soper (1957) indicated that a large and unknown degree of error is introduced in research when the self-report and the self-concept are treated as synonymous. The self-report is the individual's self-description or what he says he is. On the other hand, the self-concept is what the individual believes or perceives about himself. The self-report is a means of exploring the self-concept. It is a product of the individual's total perceptual field without having a one-to-one relationship to the self-concept. Combs and Soper also indicated that confusion of the two terms in research "has led to similar confusion in thinking and research results, making communication extremely difficult" (p. 138).

The individual's self-description will depend on the following factors (Combs and Soper, 1957):

1. Clarity of the individual's awareness. The self-concept varies in degrees of clarity. Some perceptions or beliefs about self are in clear figure at any moment while others may be in ground. The report of self-perceptions and beliefs depend to some extent on whether they are in clear figure at the moment they are asked for. Furthermore, some portions of self are regularly at a low level of awareness.
2. Lack of adequate symbols for expression. In order to accurately reflect the self one must possess adequate symbols. There are limitations in the use of words and meanings are not the same to all of us. Wylie (1974)

indicated that in the typical self-report the subject has to decide for himself the meaning of the wording of each item. Consequently, score differences which are usually interpreted as intersubject differences in self-concepts may instead be intersubject differences in the meaning of the dimension upon which each subject has scaled himself. This ambiguity in the terms and its negative effects on the interpretations of self-report scores was also pointed out by Cronbach (1970). In case of subjects of low SES the language factor has extreme importance. It has been pointed out by many authors that children of low SES have "language inadequacies" (Deutsch, 1963; Passow, 1970; Riessman, 1962). These inadequacies are related both to vocabulary and syntax. They have inability to handle abstract symbols and complex language forms; difficulties in developing and maintaining verbal thought sequences; and restricted verbal comprehension.

3. Social expectancy. There is a general tendency in our society to hide the true concepts of self even when the individual is able to report them. The things we say about ourselves are always affected by the expectations of others toward us.
4. Cooperation of the subject. Accuracy of the self-report depends on the intention of the individual to cooperate. Even when the subject is intended to cooperate he may not be quite able to give information accurately for reasons of which he is not aware.

5. Freedom from threat and personal adequacy. Other factors being equal, the more adequate and free from threat a subject feels, the more closely the self-report and the self-concept will be related. This factor has great importance when subjects of low SES are considered. If they have low self concepts, they might use certain defenses that may distort their self-descriptions. They might also use defenses against an outsider (the researcher) who is trying to probe into the subject's self.

Verbal self-reports seem to be more threatening than non-verbal ones. In a study done by Samuels (1973) a non-verbal self-report showed differences between subjects of low SES and middle SES and between whites and blacks. A verbal self-report only showed interclass differences in the black children group. The researcher attributed this difference in results to the possibility that defensive reactions and social desirability responses are more likely to be manifested when using verbal self-reports.

Evidence for this conclusion comes from the defensive reaction that this investigator noted in some of the children who scored low on the non-verbal scale. These children laughed nervously or hesitated giving the correct answer on the Brown test. (p. 470)

Some other limitations on the use of the self-report have been presented by other researchers. In the typical self-report, the subject has to decide for himself to what situations an item refers (Cronbach, 1970; Wylie, 1974). "Most questionnaires ask about the hypothetical 'typical' situation, instead of asking about well-defined situations" (Cronbach, 1970, p. 494). For example an item "I give in very easily"

may be interpreted in different ways, in different situations by a given subject. He can "give in very easily" with certain people but not with others; with respect to some issues but not with respect to others. Thus, each subject places his self-rating on the item with reference to an unknown combination of situational referents.

An additional limitation arises when the subject has to place himself on a scale with respect to a hypothetical reference group (Wylie, 1974). The instructions given usually are not sufficient to assure that all subjects will rate their self-descriptions with respect to a common reference group.

Relationship Between the Self-Report and the Inferred Self-Concept

Some researchers have developed and used inferential techniques in studying the self-concept assuming that greater insight into a person's self-perceptions is afforded through inference based on behavior than can result from his own self-ratings (Combs and Snygg, 1959; Combs and Soper, 1957; Combs *et al.*, 1963; Combs *et al.*, 1969; Long and Henderson, 1968; Parker, 1964; Pendergrass, 1971; Walsh, 1956; Ziller, 1973). Observing the subject's behavior carefully by means of play sessions, picture telling stories, critical incidents, drawings, responses to problem situations, etc., the self-concept of the behavior is reconstructed. The inferences are generally scored in scales.

Combs *et al.* (1963) provided empirical evidence indicating that the self-report and the inferred self-concept are different measures. Fifty-nine sixth grade children reported their feelings about themselves on 18 items of a self-report. Trained observers made inferences about the self-

concept of those children using the same 18 items. The average correlation of the two kinds of ratings was .11, indicating no significant relationship.

The idea that the self-report and the inferred self-concept are not synonymous has been supported by other studies. Parker (1964) compared the self-reports of 30 sixth graders on 30 items with inferences about the same items made by trained observers who used a picture story test as a source of data. He found low correlations between both methods. Furthermore, the two methods of observing people showed little similarity even when conditions were provided which should allow greatest freedom from threat and maximum opportunity for frankness.

Graves (1972) compared the responses of fifth and sixth grade children on a self-report (Pupil Florida Key) with the corresponding ratings made by their teachers on a set of parallel items. Correlations calculated between the two methods showed little commonality in scoring indicating that the self-report indices should be considered different from the inferred self-concept indices. Similar findings were reported by Michael *et al.* (1972) who followed a parallel procedure but used another self-report (CSEI). Differences were found between the self-report and the ratings made by trained observers for the subscales of mental health, personal self and social self, but not for academic self.

In a study of the self-concept of minority group pupils of different ethnic group membership, Moses *et al.* (1973) compared the results from CSEI and McDaniel's Inferred Self-Concept Scale, answered by the teachers of the subjects. They found a correlation of .37 that was significant at a level of $p < .01$. The researchers indicated that this significant

relationship does not allow one to assume that the two instruments are necessarily measuring the same construct. They pointed out as a limitation of this study the possibility that the researchers may have been a threat to teachers who might be defensive against claims of ethnic discrimination in their ratings of their pupils.

To summarize the above discussion it may be stated that:

1. Research on the relationship between children's self-concepts and socio-economic status presents inconsistent findings. Most research in this area has used the self-report as a measure of the self-concept.
2. Research on the measurement of the self-concept reveals that the self-report and the inferred self-concept are different measures. There are some indications that the inferred self-concept is a more accurate and realistic appraisal of the individual perceptions of oneself than the self-report.

Therefore, it seems logical to hypothesize that the inconsistencies in the findings of the research on the relationship between SES and self-concept may be due, to some extent, to the kind of measurement used. It is also hypothesized that the inferred self-concept is a more accurate measure of the self-concept than the self-report.

CHAPTER III DESIGN AND METHODOLOGY

Hypotheses

To accomplish the purpose of this study, the following null hypotheses were tested.

1. There are no significant differences between the self-report scores of children of low socio-economic status and children of middle socio-economic status.
2. There are no significant differences between the inferred self-concept scores of children of low socio-economic status and children of middle socio-economic status.
3. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of low socio-economic status.
4. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of middle socio-economic status.

Sample

The subjects used in this study were selected from a population of sixth graders enrolled in mostly SES segregated public schools in the Metropolitan Area of San Juan, Puerto Rico during the Spring of 1976. Schools in low SES neighborhoods as well as schools in middle SES neighborhoods were considered. Sixth graders were selected for this study for two main

reasons. The completion of one of the research instruments (the self-report) depended on the child's ability to read and make discriminative judgments about himself. Sixth graders in regular school programs are expected to have developed these skills. Also, the self-report used in this study (CSEI) has been widely used with fifth and sixth graders.

Three schools from each kind of SES neighborhood were selected based on the following criteria: (1) schools situated in different geographical positions, (2) schools in which the director and the teachers were willing to cooperate in the study.

The sample was randomized and stratified by school and sex. First, the names of all the pupils were put into lists by schools and sex. Within each list the names were assigned consecutive numbers. Eighty subjects were selected by the use of a table of random numbers. Forty of the subjects were from the lists of schools in low SES neighborhoods and 40 from the lists of schools from middle SES neighborhoods. Within each of these groups 20 were boys and 20 were girls. A group of possible substitutes was also selected following the same procedure. Ten substitutes (five boys and five girls) were selected within each SES group.

The procedure followed in selecting the subjects provided for a representative sample with respect to sex, school, teacher, peer group and neighborhood within each SES group. It was not possible to control intelligence since it is highly associated with SES, the independent variable in this study. The number of subjects in each SES group was decided based on the limitation of time presented by the inferential technique used and on considerations as to an adequate number of subjects for the statistical analysis.

The SES of the subjects was originally described by the staff of the schools but it was verified through the use of Hollingshead's two factor index of social position. The children from low SES (classes IV and V in Hollingshead's scale) were from homes in which the head of the household had an educational level that ranged from zero to 12 years. Most of them were blue collar and a small percent were unemployed (15 percent). On the other hand, the children from middle SES (class III in Hollingshead's scale) were from homes in which the head of the household had an educational level that ranged from high school only to college degrees. The employment status of them was white collar, business or professional.

Instrumentation

Two research instruments were required for collecting the data necessary for the purpose of this study. One was an inventory which could be used by the children to indicate their self-reports. The other was an inferred self-concept measure.

Self-Report

The Coopersmith's Self-Esteem Inventory (CSEI) was chosen primarily because of its wide use. It has been used in many studies on both male and female subjects ranging in age from nine to adult level. This provides an opportunity for making comparisons across studies.

There are two forms of the CSEI. Both consist of scored items which the subject checks as being "like me" or "unlike me." Form A contains 58 items and a total of five subscales representing four areas of the self-concept (General Self, Social Self-peers, Home-parents, School-academic)

and a Lie Scale. Differences in scores of these subscales are not generally significant. Form B contains 25 items and no subscales. The items of Form B are those 25 from Form A which showed the highest item score relationship of scores on Form A obtained from an item analysis. The two forms correlate .86. Form A was used in this study.

The subscales included in the CSEI Form A and the items that correspond to each of them are:

General Self	Items 1, 2, 3, 8, 9, 10, 15, 16, 17, etc.
Social Self-peers	Items 4, 11, 18, 25, 32, 39, 46, 53
Home-parents	Items 5, 12, 19, 26, 33, 40, 47, 54
School-academic	Items 7, 14, 21, 28, 35, 42, 49, 56
Lie Scale	Items 6, 13, 20, 27, 34, 41, 48, 55

The subscales do not have to be scored separately with the exception of the Lie Scale. The responses indicating high self-esteem are noted on the scored copy of the CSEI in Appendix A. The scores are reported as the total number of correct responses of all scales excluding the Lie Scale (a maximum of 50). For convenience the total CSEI score is multiplied by two so that the maximum score is 100. The distribution of most samples is skewed in the direction of high self-esteem (Coopersmith, 1967).

Reliability. Various studies have reported the reliability of the CSEI. Fullerton (1972) found a split half reliability of .87; Taylor and Reitz (1968) of .90; and Kimball (1972) found reliabilities (KR-20) for different grade levels: 4th grade = .92; 5th grade = .87; 6th grade = .88; 7th grade = .89; 8th grade = .90. Spatz and Johnston (1973) also reported high Kuder-Richardson coefficients (KR-20) for selected grade levels: 5th grade = .8136; 9th grade = .8574; 12th grade = .7951. All these figures are for the long form (Form A).

Coopersmith (1967) reported a test-retest reliability for the original 50 item scale as .88 over five weeks and .70 over three years. Fullerton (1972) indicated a test-retest reliability of .64 over a 12-month interval.

Validity. There is some information about the congruent validity of the CSEI. Getsinger *et al.* (1972) found a correlation of .60 between a derived picture test and Form A of the CSEI. Taylor and Reitz (1968) reported a correlation of .45 between the CPI self-acceptance scale and Form A of CSEI and correlations of .42 to .66 with other scales. Ziller *et al.* (1969) found correlations for males of .46 with Bill's Index of Adjustment and Values, .37 with Diggory's scale, and .02 with Ziller *et al.* scale. For females the correlations were .17, .23, and .04 respectively.

There are some studies that provide data about the concurrent validity of the CSEI. Based on studies conducted and reported to Coopersmith (1967) it can be stated that CSEI scores are significantly related to creativity, academic achievement, resistance to group pressures in an Asch type conformity situation, willingness to express unpopular opinions and perceptual constancy. CSEI scores also are significantly related to perceived reciprocal liking (Simon and Bernstein, 1971), to perceived popularity (Simon, 1972), to anxiety (Many, 1973), to effective communication between parents and youth (Matteson, 1974), and to family adjustment (Matteson, 1974).

A Spanish translation of 50 items of the CSEI were used as the self-report in this study (Appendix B). The items corresponding to the Lie Scale (8 items) were excluded. Forty of the items used were translated

for a study done by Zirkel and Moskus (1971). These items were incorporated in our self-report with some modifications. The other 10 items corresponding to the Home-parents scale were translated by this investigator with the assistance of a Puerto Rican graduate student in linguistics.

Inferred Self-Concept Measure

A picture story test was used to elicit behavior from which the self-concept of the subjects was inferred. This test consisted of a set of pictures about which the subject was asked to tell stories--what was happening, what led up to the scene and what would happen in the future. It was assumed that the subject would project himself into the scene, identifying with a character. The pictures were vague and consequently would arouse many different kinds of reactions. The nature of the pictures and the way in which they were presented would not clearly indicate the purpose of the test or the way in which the responses would be interpreted.

The pictures used were selected from Arthur Combs' collection of simple black and white drawings that present youngsters in a variety of home and school scenes. Ten were selected based on: (a) the areas of the self-concept included in the self-report (CSEI) of which inferences would be made by the rates; (b) those pictures that in past experiences demonstrated most power to stimulate children to tell stories; (c) those pictures that demonstrated most power to stimulate children to tell stories in an exploratory study with some Puerto Rican sixth graders not included in the sample. Then, they were assigned consecutive numbers and, through the use of a table of random numbers, the order of presentation to the subjects was decided. The selected pictures are shown in Appendix C in the order of presentation to the subjects.

The stories were recorded on a tape recorder. The analysis of their content was made by four graduate students in counseling at the University of Puerto Rico. They were trained in order to assure that they would approach their task from the same orientation. First, the directions were examined and possible ambiguities were cleared up. A modification of the set of directions developed by Parker (1964) were used in analyzing the picture stories (Appendix D). Next, different sets of responses to the picture story test by sixth grade children who were not part of the sample were presented. The raters (four graduate students and this investigator) analyzed the story content and recorded their inferences on the inferred self-concept scale. All the raters considered the same set of stories and the results were examined. Discrepancies were discussed. The percentage of agreement between the raters' inferences (minimum of 80 percent) determined the extension of the training which was three sessions of three hours. The percentage of agreement was obtained by computing the inferences on which a rater agreed with the four others divided by the possible number of agreements. Agreement was defined as five raters not varying more than one point on the ratings for each perceptual area. At the end of the training the percentage of agreement between raters varied between 80 to 100.

Scoring of Inferred Self-Concept Measure. In order to score the inferred self-concept measure a scale was developed by the present investigator. The four basic areas of the self-concept included in the CSEI were included in this scale: (1) General Self; (2) Social Self-peers; (3) School-academic; (4) Home-parents. Each area was described in terms of an adequate-inadequate continuum. The underlying assumption for doing

this was that each individual tends to see himself as more or less adequate in the various areas of his phenomenal self. Following is a brief explanation of what is meant by each of these perceptual areas.

1. General Self

The adequate child sees himself as able to deal with his problems. He feels as a person generally sufficient to cope with his world effectively. He perceives himself as a person of consequence, dignity, and worthy of respect.

The inadequate child sees himself as unable to deal with his problems. He feels as a person who cannot cope with his world effectively. He perceives himself as a person of little consequence, who can be overlooked, discounted and whose dignity does not matter.

2. Social Self-peers

The adequate child feels generally acceptable and likeable to other boys and girls. He sees himself as fairly treated and trusted by other children. He feels a sense of belonging with other children.

The inadequate child feels generally unacceptable and not liked by other boys and girls. He sees himself as unfairly treated and distrusted by other children. He feels alienated from others.

3. School-academic

The adequate child feels generally able to accomplish his work in school. He feels accepted by his teachers and generally satisfied with his own school performances.

The inadequate child feels generally unable to accomplish his work in school. He feels unaccepted by his teachers and generally unsatisfied with his school performance.

4. Home-parents

The adequate child feels he is liked and understood by his parents. He regards himself as fairly treated and trusted by them. He perceives himself with his parents and other members of the family rather than apart or alienated from them.

The inadequate child feels his parents do not like and understand him. He believes that he does not get along with them, that his parents treat him unfairly and that they distrust him. He feels apart or alienated from his parents.

Each of these perceptual areas is rated in a seven point scale (Appendix E). Scores are estimated in the following way. The rater assigns a numerical value to each area corresponding to the position in which it was rated. For example, a rating of seven, the most favorable rating possible on any area is assigned the value seven; a rating of six is assigned the value six and so on down to one, the least favorable rating possible. Then the numerical values assigned to each area are added and a total score is obtained which represents the score for the inferred self-concept.

Reliability. Various studies have reported the reliability of the inferred self-concept measure. Combs and Soper (1963b) considered the commonality weights in a factor analysis as an indicator of the reliability of the measure. They found that of 17 items related to self-concept only two showed commonalities of less than .70. This reliability estimation was for a group of Kindergarten children using observations, interviews, and picture stories as the source of data for making inferences.

Parker (1964) reported percentages of agreement between raters ranging between 62.1 to 69.6 when the instrument was considered as a five point scale and 61.4 to 74.2 when it was considered as a three point one. He also reported the intrarater consistency over four weeks. When the instrument was considered as a five point scale the intrarater percentage of agreement was 77, whereas when it was considered as a three point scale, the percentage increased to 83. These reliability estimations were for a sample of sixth graders using picture stories as the source of data.

Pendergrass (1971) used a sample of adolescents and obtained a coefficient of concordance of .65 ($\chi^2 = 271.57$ $p < .001$) as a measure of interscorer reliability. He used critical incidents as the source of data. Walsh (1956) reported percentages of agreement among raters ranging from 68 to 93 for a five point scale and from 75 to 93 for a three point scale. Her sample was a group of "bright" boys from second to fifth grade and the inferences were made from observations of a doll play.

Validity. There are some studies that provide data about the concurrent validity of the inferred self-concept measure. This measure was found to correlate positively and significantly with staff judgments of counselor effectiveness (Combs and Soper, 1963a); to correlate significantly with certain behavioral dimensions of student nurses like openness to experience, self-acceptance and empathy (Dickman, 1967); to discriminate between public school teachers rated as effective or ineffective by principals and curriculum coordinators (Gooding, 1964); to correlate significantly with students' ratings of their college teacher effectiveness (Usher, 1966); to discriminate between low achievers and satisfactory achievers in a sample of bright boys (Walsh, 1956).

Data Collection

The data were collected by this investigator within a period of four weeks in the spring of 1976. The first step was to get information about the occupation and the level of education of the head of the household of each of the subjects. These data were obtained from the school records and from the subjects when the records were incomplete. By using

Hollingshead's two factor index of social position the SES of the subjects as originally described by the school staff was verified. Two subjects were substituted because their SES did not correspond to the group to which they were originally assigned (one from each group). The substitutes were from the list prepared at the time the sample was drawn.

The subjects were told that the investigator was interested in studying children and that I was trying to know how they see themselves and how imaginative they are. They were assured that the information obtained from them would not be revealed to the school personnel.

The Spanish translation of the CSEI, Form A was administered in groups in each school considered. The copies of this instrument were coded with the identification numbers assigned to the subjects. In each administration of the CSEI the names of the subjects were read. As each subject was mentioned he received a copy of the instrument that had his corresponding identification number. In this way the identity of the person that answered the instrument was ascertained for data analysis. Then the purpose and the directions of the instrument were read to the subjects as follows:

The purpose of this test is to know how people describe themselves. It is only used for research purposes. There are not right or wrong answers. This test will not be considered for your grades. You do not have to write your name. Thank you very much for your cooperation.

Here are fifty statements that describe how people usually feel. If the statement describes how you usually feel, put a check mark (✓) in the column "YES". If the statement does not describe how you usually feel, put a check mark (✓) in the column "NO".

The picture story test was administered individually. Although privacy was attained in most of the schools employed, the rooms avail-

able in them were not as pleasant as might be desired. Nevertheless, the test was administered in an acceptable environment. The subjects were told that the purpose of the test was to know how imaginative children are. The directions were explained as follows:

I am going to show you some pictures one at a time and I would like you to make up a story about each one. Remember, this is a test of your imagination so make up the very best story you can. It may be any kind of story about the people in the picture. Tell what is happening, what led up to it, and how things are going to turn out. No one who knows you will find out what kind of stories you tell so you can say anything that comes to mind no matter how it may sound. (Parker, 1964, p. 52)

The stories were recorded on a tape recorder. It was arranged that the teacher would designate the subjects in the order in which they would appear in the recordings. The sets of stories were coded with the identification numbers of the subjects.

In order to prevent differential effects of daily changes in the test administration and other factors, subjects of different SES were considered in alternate form, that is, one day of low SES and the other of middle SES. Half of the subjects in each SES group answered the self-report first and then the picture story test; the other half answered the tests in opposite sequence. This controlled the possible effect of any response set created by the administration of one test over the other.

After all the data were collected, the recorded stories were analyzed and rated. The unit for rating was the whole set of stories of each subject. The 10 stories of each subject were heard twice and rated on one perceptual area at a time. Rating was made by area rather than by subject, that is, all subjects were rated on the same perceptual area

before proceeding to the next one. This made it possible to maintain a more uniform standard for judging the content of the stories for each area and to prevent the halo effect that might result from rating each set of stories on all four perceptual areas of each subject at once.

Data Analysis

Hypotheses 1 and 2

These hypotheses involved a comparison of two groups (low SES and middle SES) in two dependent variables (self-report and inferred self-concept). The null hypotheses to be tested were that the two groups have the same population means for the self-report and that the two groups also have the same population means for the inferred self-concept. In such cases, a multivariate analysis is recommended (Cooley and Lohnes, 1962; Huck *et al.*, 1974).

The two group discriminant analysis was selected for two main reasons. First, it would compare the two SES groups in all the dependent variables (self-report scores and inferred self-concept scores) simultaneously and if an overall significant difference is found, it would indicate which dependent variable(s) contributed to it. This was the basic information needed for testing the first two hypotheses of this study. Second, a computer program for discriminant analysis is included in the Statistical package for social sciences (SPSS) system (Nie *et al.*, 1975). This could be used easily at the Northeast Regional Data Center at the University of Florida, facilitating in that way the overall process.

Discriminant analysis can be used when a researcher desires to statistically determine if there are differences between two or more

group of cases in a collection of dependent variables. This is attained through weighting and linearly combining the dependent variables of the groups in the form of one or more discriminant functions. The general expression of the discriminant function is:

$$D = d_1Z_1 + d_2Z_2 + \dots d_nZ_n$$

where D is the score of the discriminant function, the d's are the weighting coefficients and the Z's are the standardized values of the dependent variables used in the analysis. The maximum number of functions to be derived in a discriminant analysis is equal to the number of groups minus one or the number of dependent variables, if there are more groups than variables (Nie *et al.*, 1975). Once the discriminant functions are derived, the relative importance of them in discriminating among the groups can be determined. Since the discriminant functions can be considered as axes of a geometric space, they can be used to study the spatial relationship among the groups. Furthermore, the weighting coefficients, usually called standardized discriminant function coefficients, can serve to identify the relative contribution of each dependent variable in differentiating the groups (Nie *et al.*, 1975).

Hypotheses 3 and 4

These hypotheses included a comparison of the self-report scores and the inferred self-concept scores within each group. Accordingly, Pearson product-moment correlation coefficients were obtained for each group and in general.

Reliabilities of the Measures

Reliabilities of the two kinds of measures of the self-concept used in this study were determined. The Kuder-Richardson "Formula 20" (KR-20)

was used to estimate the reliability of the self-report (CSEI). This statistic was estimated for all the subjects and for each SES group.

The reliability of the inferred self-concept measure was estimated by means of interrater correlations. Fifteen subjects (18.75 percent) were judged by the four raters and these ratings were the basis for this estimation. Correlations were obtained between the scores assigned by the trained raters in each of the perceptual areas and in general.

CHAPTER IV FINDINGS

Reliabilities of the Measures

Reliabilities of the measures used in this study were estimated to ascertain the degree to which the data collected was consistent. Kuder-Richardson reliabilities (KR-20) of the Spanish translation of the CSEI were: low SES, .84; middle SES, .82; all sample, .85.

Pearson product-moment correlation coefficients between the raters were obtained as an estimation of the reliability of the inferred self-concept measure. Interrater correlations were estimated for the general score and for each perceptual area score. Table 1 shows Pearson product-moment correlation coefficients for the total score. The interrater reliability estimates ranged from .88 to .94.

Table 1
Intercorrelations Among Four Raters on the General
Score of the Inferred Self-Concept Measure^a

Raters	1	2	3	4
1	-	.89	.88	.89
2		-	.90	.88
3			-	.94
4				-

^a
 $\frac{n}{p} = 15$
 $p < .001$

Interrater correlations in each perceptual area are shown in Table

2. The median correlation between raters for each perceptual area were: General Self, .835; Social Self-peers, .850; School-academic, .590; Home-parents, .655.

Intercorrelations between the different areas of the self-report are presented in Table 3 and those of the inferred self-concept are presented in Table 4. The intercorrelations between the areas of each measure were generally high, particularly in the inferred self-concept measure. Of special interest is the general Self area which correlated very high with the total score in both the self-report and the inferred self-concept measure.

Hypotheses 1 and 2

The first two hypotheses involved a comparison of two SES groups in two measures of the self-concept. The null hypotheses tested were:

1. There are no significant differences between the self-report scores of children of low SES and children of middle SES.
2. There are no significant differences between the inferred self-concept scores of children of low SES and children of middle SES.

Table 5 presents the means and standard deviations of the two SES groups on two sets of five scores (dependent variables). A general tendency toward higher means within the middle SES group on all the variables is observed.

A discriminant analysis (SPSS program) was used to determine if there were significant differences between the two SES groups in two

Table 2
Intercorrelations Among Four Raters on Four Perceptual Areas
of the Inferred Self Concept^a

Raters	General Self	Perceptual Areas		
		Social-Self-peers	School-Academic	Home-Parents
1 and 2	.84**	.86**	.33	.64**
1 and 3	.83**	.81**	.45**	.67**
1 and 4	.78**	.82**	.47**	.57**
2 and 3	.85**	.87**	.71**	.57**
2 and 4	.71**	.90**	.76**	.74**
3 and 4	.88**	.84**	.91**	.73**

^a $n = 15$

** $p < .05$

*** $p < .01$

Table 3

Intercorrelations Between Different Subscale Scores
and Total Score of the Self-Report (CSEI)^a

Subscales	1	2	3	4	5
1. General Self	-	.5642	.6303	.5721	.9438
2. Social Self-peers		-	.4116	.3092	.6779
3. School-academic			-	.4448	.7628
4. Home-parents				-	.7167
5. Total					-

^a $\underline{n} = 80$

$p < .01$

Table 4

Intercorrelations Between Different Perceptual Area Scores
and the Total Score of the Inferred Self-Concept^a

Perceptual Areas	1	2	3	4	5
1. General Self	-	.6793	.7164	.7962	.9382
2. Social Self-peers		-	.5679	.5143	.8015
3. School-academic			-	.5632	.8244
4. Home-parents				-	.8518
5. Total					-

^a $\underline{n} = 80$

$p < .01$

Table 5

Means and Standard Deviations of Low and Middle
SES Groups on Ten Variables

Dependent Variables	Low SES		Middle SES	
	M	SD	M	SD
Self-report scores				
General Self	15.60	4.12	18.52	3.57
Social Self-peers	4.92	1.51	6.22	1.14
School-academic	5.25	1.79	6.18	1.45
Home-parents	5.22	1.73	5.72	1.80
Total	31.00	7.64	36.65	6.10
Inferred Self-concept scores				
General Self	3.90	1.94	4.70	1.45
Social Self-peers	3.98	1.69	4.40	1.50
School-academic	3.82	1.63	4.28	1.45
Home-parents	4.10	1.89	4.82	1.62
Total	15.80	6.39	18.20	4.75

sets of scores simultaneously: self-report and inferred self-concept scores. These scores were considered as the dependent variables in the analysis. Among the statistics yielded by the subprogram DISCRIMINANT of the SPSS program are univariate F s, measures of the importance of the discriminant functions (eigenvalue and canonical correlation), test of significance to determine whether the discriminant function was able to differentiate between the groups by factors other than by chance (Wilks' lambda and its equivalence in terms of chi-squared statistic) and the standardized discriminant function coefficients. These coefficients are useful in determining the relative contribution made by each variate of the dependent variable set to the group separation.

Two different sets of dependent variables were used in the subprogram run in the computer. In the first one, two variates were considered: the total score of the self-report and the total score of the inferred self-concept. The discriminant function yielded (discriminant function 1) had a canonical correlation of .397 which indicates a moderate correlation with the groups. Data from this analysis are shown in Table 6. Wilks' lambda (λ) was .8422 and this corresponds to a chi-square (χ^2) of 13.221 ($df = 2$) significant at .001 level. Therefore, the total score of the self-report and the total score of the inferred self-concept, as a set, differentiated between the low SES and the middle SES groups.

Standard discriminant function coefficients listed in Table 6 show that the total self-report was the largest contributor of this significant difference. The univariate F -ratio also helps to determine the relative contribution of these variables to the separation of these groups. The total self-report had an univariate $F = 13.3616$ ($df = 1, 78$)

significant at .001 level, while the total inferred self-concept had an univariate $F = 3.6307$ ($df = 1, 78$) not significant at the .05 level. Thus, the groups were significantly different in terms of the total self-report score, but not in terms of the total inferred self-concept score.

Table 6

Discriminant Function Analysis of Low and Middle SES
Groups with Two Measures of the Self-Concept
as the Dependent Set of Variables^a

Source of Variation	Dependent Variable	Univariate F^b	$p <$	SDFC
SES	Total Self-report	13.3616	.001	.85866
Low Group-Middle Group	Total Inferred Self-Concept	3.6307	.10	.27380

Note. Abbreviated: SDFC: Standardized discriminant function coefficients.
 $\lambda = .8422$, $\chi^2 = 13.221$ ($df = 2$), $p < .001$.

^a $n = 80$

^b $df = 1/78$

As a check of the adequacy of this discriminant function, the computer classified the original set of subjects to see how many could be correctly assigned to the SES group by the set of variables used. In general, 72.5 percent of the subjects were correctly classified. The results of this prediction are included in Table 7.

The second set of dependent variables used in the discriminant analysis comprised eight subscores: four of the self-report and four of the inferred self-concept. A moderate canonical correlation of .478 was obtained for the discriminant function yielded in this analysis (dis-

criminant function II). This correlation was higher than the one corresponding to the first discriminant function.

Table 7

Absolute Number and Percentage of Subjects Correctly and Incorrectly Classified in Each SES Group Based on Discriminant Function I^a

Actual Group	Predicted Group Membership			
	Low SES		Middle SES	
	n	%	n	%
Low SES	27	67.5	13	32.5
Middle SES	9	22.5	31	77.5

^a_n = 80

Table 8 includes data from this discriminant analysis. Wilks' lambda in this case was .7718 and this corresponds to a chi-square of 19.166 (df = 8) significant at a .01 level. Thus, chances are less than one out of a hundred that the discriminant function comprising the set of eight subscores did not differentiate between the two SES groups.

Standardized discriminant function coefficients show that the two SES groups differed far more in terms of the reported Social Self-peers, the reported General Self and the inferred General Self than they did in terms of other subscores. The General Self was the only subscore of the inferred self-concept that had an univariate F value significant at the .05 level. On the other hand, three of the four subscores of the self-report had F values significant at the .05 level: General Self, Social Self-peers and School-academic.

Table 8

Discriminant Function Analysis of Low and Middle SES
Groups With Nine Measures of the Self-Concept
as the Dependent Set of Variables^a

Source of Variation	Dependent Variable	Univariate F^b	p<	SDFC
SES	Self-report			
Low SES-Middle SES	General Self	11.5098	.01	.23617
	Social Self-peers	18.8650	.01	.37327
	School-academic	6.4396	.05	.05066
	Home-parents	1.6053	.25	.11491
	Inferred Self-concept			
	General Self	4.3408	.05	.17389
	Social Self-peers	1.4189	.25	.02849
	School-academic	1.7006	.25	.09049
	Home-parents	3.3971	.10	.05468

Note. Abbreviated: χ^2 SDFC: Standardized discriminant function coefficients.
 $\lambda = .7718$, $\chi^2 = 19.166$ (df = 8), $p < .01$.

^a $n = 80$

^bdf = 1/78

The classification of the original set of subjects as a way to check the adequacy of the second discriminant function revealed a 71.25 percent of correct classifications. Table 9 offers more details about these prediction results.

Table 9

Absolute Number and Percentage of Subjects Correctly and Incorrectly Classified in Each SES Group Based on Discriminant Function 11^a

Actual Group	Predicted Group Membership			
	Low SES		Middle SES	
	<u>n</u>	%	<u>n</u>	%
Low SES	28	70.0	12	30.0
Middle SES	11	27.5	29	72.5

^an = 80

Since a significant difference was found between the low SES group and the middle SES group in terms of the self-report (univariate $F = 13.316$, $df = 1/78$, $p < .001$, $SDFC = .85866$), the first null hypothesis was rejected. On the other hand, the inferred self-concept measure did not discriminate between the two SES groups (univariate $F = 3.6307$, $df = 1/78$, $p < .10$, $SDFC = .27380$). Therefore, the second null hypothesis was accepted.

Hypotheses 3 and 4

The third and fourth hypothesis involved a comparison between the self-report and the inferred self-concept within each SES group. They were stated as follows:

3. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of low SES.
4. There is no significant relationship between the self-report scores and the inferred self-concept scores of children of middle SES

Three correlation tables were generated to ascertain the degree of relationship between the self-report and the inferred self-concept measures. The subprogram PEARSON CORRELATION of the SPSS program was used for this purpose. All correlation coefficients were tested for significance at the $p \leq .05$ level.

Table 10 shows the correlation coefficients among the scores of the self-report and the inferred self-concept for all the subjects. Sixteen out of 25 coefficients were found to differ significantly from zero but they were generally low. The total scores of the self-report and the inferred self-concept had an $r^2 = .0796$, which indicates that the proportion of the variance in one that can be "explained" by the other is very low.

The correlation coefficients between the self-report and the inferred self-concept measures within each SES group are shown in Tables 11 and 12. Fourteen out of 25 coefficients in the low SES group differed significantly from zero at .05 level but none of them reached significance at the .01 level. The correlations between the self-report and the inferred self-concept in the areas of General Self, Social Self-peers and Home-parents were not significant. On the other hand, the correlations between the two measures in the area of School-

academic and the total score were significant but low indicating a weak relationship between them for the low SES group. Therefore, the third hypothesis was rejected.

Table 10

Product-Moment Correlation Coefficients Between the Total Scores and Subscores of Four Areas of the Self-Report and the Inferred Self-Concept for all Subjects^a

Self-Report	Inferred Self-Concept				
	1	2	3	4	5
1. General Self	.2032*	.0927	.1925*	.2706**	.2246*
2. Social Self-peers	.3517**	.1942*	.2849**	.3191**	.3386**
3. School-academic	.2866**	.1658	.1752	.3350**	.2860**
4. Home-parents	.0921	.1200	.0834	.0777	.1086
5. Total	.2692**	.1561	.2227*	.3075**	.2822**

^a $n = 80$

* $p < .05$

** $p < .01$

Most correlation coefficients between the two kinds of measures of the self-concept in the middle SES group were not significantly greater than zero.^c Only two out of 25 reached significance at the .05 level and none was significant at the .01 level. Therefore, the fourth null hypothesis was accepted.

Table 11

Product-Moment Correlation Coefficients Between the Total Scores and Subscores of Four Areas of the Self-Report and the Inferred Self-Concept for Low SES Subjects^a

Self-Report	Inferred Self-Concept				
	1	2	3	4	5
1. General Self	.1997	.2200	.3175*	.3080*	.2909*
2. Social Self-peers	.2682*	.1403	.3175*	.3081*	.2908*
3. School-academic	.2939*	.2309	.3133*	.2871*	.3152*
4. Home-parents	.0601	.1512	.1686	.0321	.1107
5. Total	.2433	.2348	.3457*	.3016*	.3134*

^a $\underline{n} = 40$

* $p < .50$

Table 12

Product-Moment Correlation Coefficients Between the Total
Scores and Subscores of Four Areas of the Self-Report
and the Inferred Self-Concept for
Middle SES Subjects^a

Self-Report	Inferred Self-Concept				
	1	2	3	4	5
1. General Self	.0311	-.1743	-.0632	.0918	-.0335
2. Social Self-peers	.3194*	.1706	.1474	.1885	.2606*
3. School-academic	.1474	.0024	-.0968	.3094*	.1215
4. Home-parents	.0658	.0514	-.0490	.0713	.0457
5. Total	.1325	-.0544	-.0468	.1836	.0715

^a $\bar{n} = 40$

* $p < .50$

CHAPTER V DISCUSSION

This study generated more questions than answers. The main problem was partially answered and new questions arose that should be investigated.

Hypotheses 1 and 2

The theoretical position that children of low SES tend to have, as a group, lower self-concepts than middle SES children appear to be partially supported by the findings of this study. The former group reported lower perceptions of themselves which can be considered a partial indication of their self-images without being synonymous with them. The inferred General Self was also found to be consistent with that theoretical position. Although the rest of the inferred self-concept measure (which is considered in this study as a better measure of the self-concept than the self-report) was unable to detect such difference, it is hypothesized that this was the result of a limitation of the measure, more than of the non-existence of such a difference. This limitation, which deals with the validity of the inferences based on the picture story test, will be discussed in another section of this chapter.

Hypotheses 2 and 3

The results of this study are consistent with previous research indicating that the self-report and the inferred self-concept are measur-

ing different aspects of the self. Although a small and significant relationship was found between them in the present study with all subjects and within the low SES group, it cannot be considered meaningful. The percentage of variance in one that can be explained by the other was very low in both cases.

The self-report and the inferred self-concept appear to measure different characteristics of the self. The self-report is what a person is able and willing to say about himself at the particular moment he is asked to do so. This information along with other obtained from other sources like direct observation of behavior and interviews can be useful in making inferences about self-perceptions. Having different sources of information, including the self-report, might help to determine why a subject needs to hide his feelings and beliefs about himself when asked to report them. The extent to which these self-perceptions are hidden in a self-report might also be determined through the use of a variety of behavioral sources.

Contrary to what was expected, the low SES group demonstrated a significant but low relationship between the two measures. This relationship was absent in the middle SES group. It is hypothesized that this difference can be partially explained in terms of differences between the two groups in their willingness to give information about themselves. There are some indications that people of low SES in Puerto Rico tend to be more opened when they give information about themselves than people of middle SES. It is interesting to observe these people talking to strangers in public places about what middle class people consider as intimate, not to be shared with others. This difference in openness is

clearly observed in adults and it is possible that it is already established in the age group considered in this study.

There are some perceptual and behavioral characteristics associated with SES that may help to explain this difference in willingness to report perceptions of self. Middle SES people are oriented toward prestige advancement. They are strongly motivated towards attaining a high SES position, *i.e.*, towards social mobility. Since they place great value on achieving, they tend to be impersonal in social interaction and to be self-controlled as compared to low SES people. It is possible that the threat of losing prestige affects the results of a self-report inventory in subjects of middle SES more than in subjects of low SES.

Summary Discussion and Implications

The findings of this study, which suggest that children of low SES tend to have lower self-concepts than children of middle SES, harmonize with other established relationships. It has been pointed out frequently in the literature, both in the United States and Puerto Rico, that learning problems, disruptive behavior and school abandonment are higher in children of low SES than in children of middle SES. At the same time these problems have been found to be correlated with low self-concepts. It is possible that children of low SES have lower self-concepts than those of middle SES and this fact partially contributes to more educational and psychosocial problems in the former group than in the latter.

Many authors have pointed out that the school is middle-class oriented and as such supports and supplements the home and neighbor-

hood experiences of the middle class, and furthermore, may actually offer opposition to the home and neighborhood experiences of lower class children. The latter have few experiences which produce readiness for academic learning either intellectually or attitudinally. Since the curriculum is based on the experiences, goals and expectations of the middle class, schools may tend to fasten the beginnings of poor self-perceptions in low SES children, and continue to reinforce them throughout the years.

The findings of this study have important implications for the Puerto Rican schools. The largest percent of those children who attend public schools are supposed to be of low SES. Yet the schools are middle-class oriented. Thus, their curricula are not based on the reality of most of their population. If it is true that children of low SES tend to have lower self-concepts than middle SES children, then the school should provide experiences toward the improvement of the self-perceptions of the former group. In that way children of low SES could benefit more from school and the latter could contribute more effectively to develop the human potential to its maximum.

Many changes can be done in the curricula of the schools that might enhance the self-concepts of children of low SES. Biehler (1974) indicated some suggestions that are summarized as follows:

1. Do everything possible to satisfy the deficiency needs--physiological, safety, belongingness, esteem.
 - a. Allow for the physical condition of your pupils.
 - b. Make your room physically and psychologically safe.
 - c. Show your students that you take interest in them and that they "belong" in your classroom.
 - d. Arrange learning experiences so that all can gain at least a degree of esteem.

2. Strive to enhance the attractions and minimize the dangers of growth choice.
3. Direct learning experiences toward feelings of success in an effort to encourage a realistic level of aspiration, and a positive self-concept.
4. Be alert to the damaging impact of excessive competition.
5. For students who need it, encourage the development of a desire to achieve. (pp. 480-481)

The finding that the self-report and the inferred self-concept are different measures in both SES groups of this study has important implications not only for the researcher, but also for the helping professionals like teachers, psychologists, counselors, and social workers. The self-report gives partial information about the self-concept and therefore should be supplemented with other information obtained from other sources. All this information can be used to infer the self-concept.

Validity of the Study

The inferred self-concept measure used in this study was highly reliable but its validity is questioned. Specifically, what is questioned is the validity of projective techniques, like the picture story test as a source of data from which self-concepts of children can be inferred. This problem became evident to the investigator when he discovered that some subjects who reported low self-concepts created projective stories in which they reflected very positive images of themselves.

Projective techniques were originally developed for adult subjects but they have also been used with children. Is the basic assumption from which these techniques are based generally true for children? It is possible that the child projects only part of his reality, while the rest is actually imagination, or a fantasy of reality as he desires it to be. Fantasy is generally described in psychological literature as a

normal feature of childhood behavior. If this is true, it will be difficult to know from their responses when they are presenting reality and when they are presenting their dreams.

This suspected lack of validity of the inferences based on the picture story test made impossible to answer one of the basic questions of this study: to what extent the inferred self-concept would be more in line with what was expected by theory on the relationship between the self-concept and SES than the self-report.

Limitations of the Study

The findings of this study are limited in the extent to which they can be generalized to other low and middle SES groups. The subjects were from neighborhoods of an urban, metropolitan area and it is unknown to what extent the data would differ if the subjects were from rural areas or small towns. Observed behavioral differences between rural and urban areas, as well as between big cities and small towns, suggest the possibility of differences in personality structure and organization (e.g., self-concept), as well. The present findings are also limited by cultural factors. It is unknown to what degree cultural patterns in Puerto Rico differ from other research samples, such as those in the United States. It should also be remembered that the findings can only be generalized to children who attend schools mostly segregated by social class because the sample of this study was drawn from that kind of school.

Suggestions for Further Research

The analysis and interpretation of the data of this study generated several questions that should be investigated in the future. Following is a brief description of some of them.

1. The use of fantasy and its relationship with reality in projective test situations should be explored if this test is to be used with children in the future. One way to start with this is by measuring the tendency to use fantasy vs. reality across age groups. Plotting this information might generate a relationship between "fantasy behavior" and "reality behavior" over age and therefore, a correcting factor for the projective techniques. In this way the perceptual field of the subject under study might be more validly inferred. Would the results of this research be different if the inferences were based on direct observations of the subjects in different situations?
2. One important finding in this study was the high correlations between the General Self subscale with other subscales and the total score of the inferred self-concept measure. Evidently the General Self subscale overlap greatly with the other subscales, sharing "common factor(s)". These high associations are very important since this was the only subscale of the inferred self-concept measure that discriminated between the SES groups. Is it possible that this subscale by itself measures the self concept construct? A study of the common factors of these subscales is recommended as a step in the improvement of the measure.

A very high correlation was also found between the General Self and the total score of the CSEI. This indicates great commonality between the two scores. The possibility of using this subscale by itself as the self-report should be explored too.
3. The exploration of other sources of behavioral data which could be less dependent on the subject's ableness and willingness to reveal

himself than those traditionally used in psychological research is highly recommended. Research is needed on the possibility of using psychophysiological measures as source of data from which the self-concept could be inferred.

4. Further research should be done to clear out the difference found in this study between the relationship of the self-report and the inferred self-concept of children of low SES and children of middle SES. Does social expectancy affect more the results of the self-report of middle SES subjects than those of low SES? If this is true, at what stage of development does this difference appear for the first time?
5. The subjects of this study were from schools segregated by social class and from neighborhoods of an urban, metropolitan area. Research is needed based on samples from rural and/or small towns and from schools integrated by social class. A comparison of the self-concept of low SES children from rural and urban areas is also needed.

APPENDICES

APPENDIX A

SCORED COPY OF THE COOPERSMITH'S SELF-ESTEEM INVENTORY,
FORM A

Please mark each statement in the following way: If the statement describes how you usually feel, put a check (✓) in the column "LIKE ME". If the statement does not describe how you usually feel, put a check (✓) in the column "UNLIKE ME". There are no right or wrong answers.

	LIKE ME	UNLIKE ME
1. I spend a lot of time daydreaming.		✓
2. I'm pretty sure of myself.	✓	
3. I often wish I were someone else		✓
4. I'm easy to like	✓	
5. My parents and I have a lot of fun together	✓	
LIE 6. I never worry about anything		✓
7. I find it very hard to talk in front of the class		✓
8. I wish I were younger.		✓
9. There are lots of things about myself I'd change if I could		✓
10. I can make up my mind without too much trouble	✓	
11. I'm a lot of fun to be with.	✓	
12. I get upset easily at home		✓
LIE 13. I always do the right thing.		✓
14. I'm proud of my school work.	✓	
15. Someone always has to tell me what to do.		✓
16. It takes me a long time to get used to anything new		✓

		LIKE ME	UNLIKE ME
	17. I'm often sorry for the things I do.		✓
	18. I'm popular with kids my own age . .	✓	
	19. My parents usually consider my feelings	✓	
LIE	20. I'm never unhappy.		✓
	21. I'm doing the best work that I can .	✓	
	22. I give in very easily.		✓
	23. I can usually take care of myself. .	✓	
	24. I'm pretty happy	✓	
	25. I would rather play with children younger than me.		✓
	26. My parents expect too much of me . .		✓
LIE	27. I like everyone I know		✓
	28. I like to be called on in class. . .	✓	
	29. I understand myself.	✓	
	30. It's pretty tough to be me		✓
	31. Things are all mixed up in my life		✓
	32. Kids usually follow my ideas	✓	
	33. No one pays much attention to me at home.		✓
LIE	34. I never get scolded.		✓
	35. I'm not doing as well in school as I'd like to		✓
	36. I can make up my mind and stick to it.	✓	
	37. I really don't like being a boy-girl		✓
	38. I have a low opinion of myself . . .		✓

		<u>LIKE ME</u>	<u>UNLIKE ME</u>
	39. I don't like to be with other people		✓
	40. There are many times when I'd like to leave home		✓
LIE	41. I'm never shy.		✓
	42. I often feel upset in school		✓
	43. I often feel ashamed of myself . . .		✓
	44. I'm not as nice looking as most people		✓
	45. If I have something to say, I usually say it	✓	
	46. Kids pick on me very often		✓
	47. My parents understand me	✓	
LIE	48. I always tell the truth.		✓
	49. My teacher makes me feel I'm not good enough.		✓
	50. I don't care what happens to me. . .		✓
	51. I'm a failure.		✓
	52. I get upset easily when I'm scolded.		✓
	53. Most people are better liked than I am.		✓
	54. I usually feel as if my parents are pushing me		✓
LIE	55. I always know what to say to people		✓
	56. I often get discouraged in school. .		✓
	57. Things usually don't bother me . . .	✓	
	58. I can't be depended on		✓

APPENDIX B

SPANISH TRANSLATION OF THE COOPERSMITH'S SELF-ESTEEM INVENTORY
FORM A

El propósito de esta prueba es averiguar como las personas se describen a si mismas. Esta es una prueba que se usa en investigaciones solamente. No hay contestaciones correctas o incorrectas. Esta prueba no cuenta para tus notas ni para pasar o no de grado. No tienes que escribir tu nombre. Gracias por tu cooperación.

COOPERSMITH'S SELF-ESTEEM INVENTORY (TRANSLATED)

DIRECCIONES

Lee cuidadosamente cada una de las siguientes oraciones. Escribe una marca de cotejo (✓) bajo la columna SI, si la oración describe como tú te sientes casi siempre. Escribe una marca de cotejo (✓) bajo la columna NO, si la oración no describe como tú te sientes casi siempre.

EJEMPLO

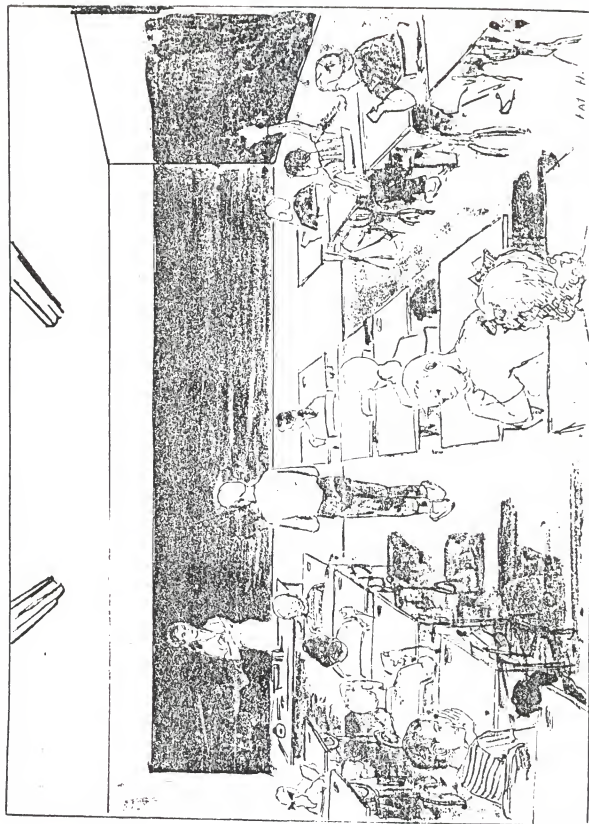
	SI	NO
Estudio mucho.		

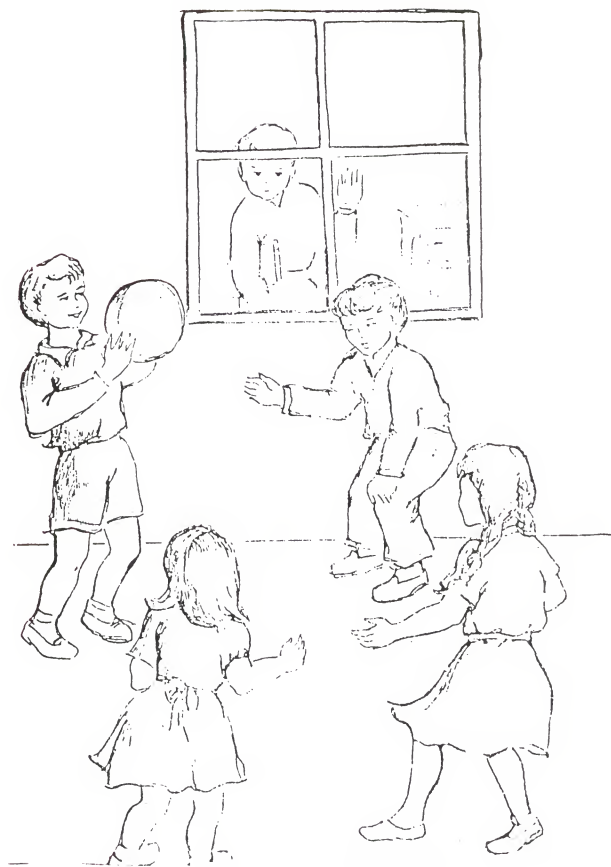
	SI	NO
1. Me paso mucho tiempo soñando despierto.		
2. Estoy seguro de mi mismo.		
3. Muchas veces deseo ser otra persona.		
4. Por lo regular le caigo bien a las personas.		
5. Mis padres y yo la pasamos muy bien cuando estamos juntos.		
6. Me es difícil hablar en frente de la clase.		
7. Quisiera ser más joven.		
8. Hay muchas cosas en mí que me gustaría cambiar si pudiera.		
9. Puedo hacer decisiones sin mucho esfuerzo.		
10. Es agradable estar en mi compañía.		
11. Me molesto con facilidad en mi casa.		

	SI	NO
12. Estoy orgulloso de mi trabajo en la escuela.		
13. Alguien siempre tiene que decirme lo que debo hacer.		
14. Me toma mucho tiempo adaptarme a las cosas nuevas.		
15. Muchas veces me arrepiento de las cosas que hago.		
16. Soy popular entre los de mi misma edad.		
17. Por lo general a mis padres les importa el como you me siento.		
18. Estoy haciendo el mejor trabajo que puedo.		
19. Me dejo convencer fácilmente.		
20. Por lo general me puedo defender solo.		
21. Soy muy feliz.		
22. Preferiría jugar con niños menores que yo.		
23. Mis padres esperan demasiado de mí.		
24. Me gusta que me llamen a contestar en clase.		
25. Me entiendo a mi mismo.		
26. Es muy difícil ser yo mismo.		
27. Todo es muy confuso en mi vida.		
28. Por lo general otros niños siguen mis ideas.		
29. Nadie me presta atención en mi casa.		
30. No estoy haciéndolo tan bien en la escuela como me gustaría hacerlo.		
31. Puedo hacer una decisión y continuar con ella.		
32. En realidad no me gusta ser niño (niña).		
33. Tengo una opinión baja de mi mismo.		
34. No me gusta la compañía de otras personas.		

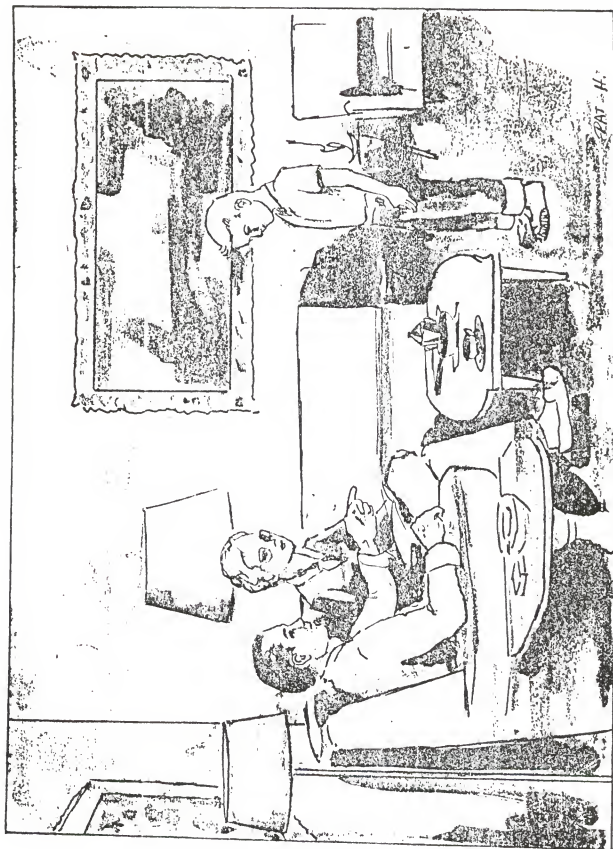
	SI	NO
35. Muchas veces quisiera irme de mi casa.		
36. A menudo me siento incómodo en la escuela.		
37. Muchas veces me siento abochornado de mi mismo.		
38. No luzco tan bien como otras personas.		
39. Si tengo que decir algo, por lo regular lo digo.		
40. Los muchachos me molestan a menudo.		
41. Mis padres me entienden.		
42. Mi maestra me hace sentir inferior.		
43. No me importa lo que me pasa a mi.		
44. Soy un fracasado.		
45. Me molesto fácilmente cuando me reprenden.		
46. La mayoría de las personas son aceptadas mejor que yo.		
47. Casi siempre me siento como si mis padres me estuvieran obligando.		
48. Me desanimo frecuentemente en la escuela.		
49. Por lo general muchas cosas no me molestan.		
50. No se puede tener fe en mí.		

APPENDIX C
PICTURE STORY TEST

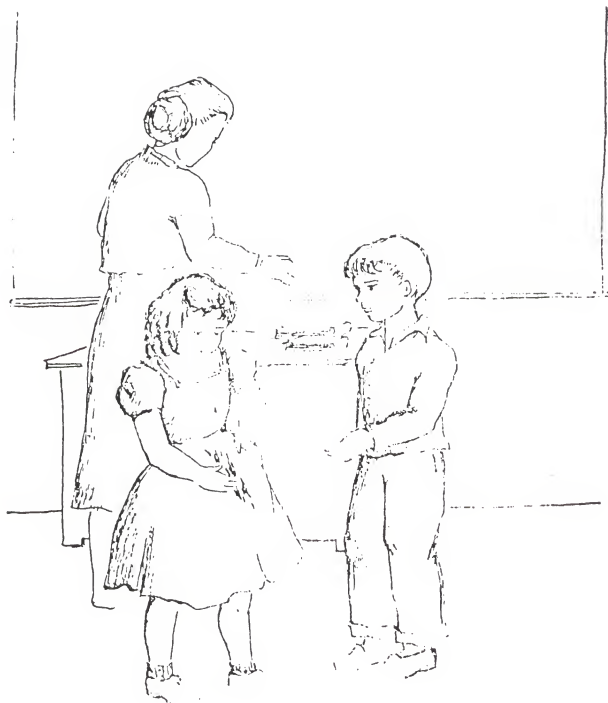


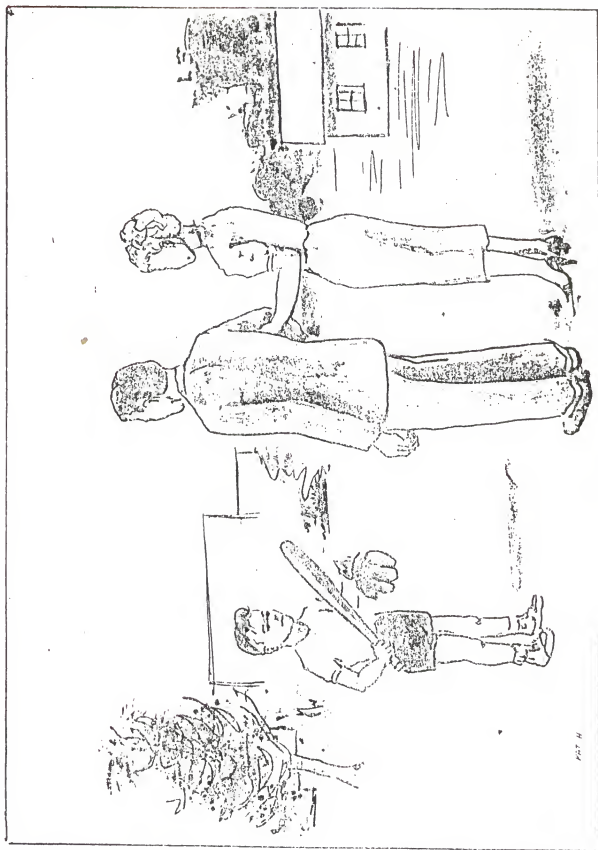


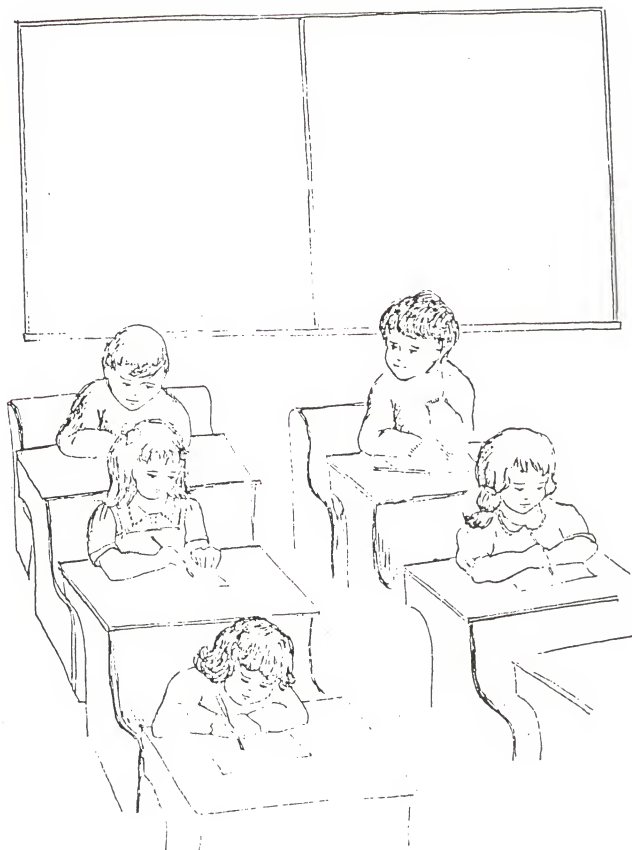


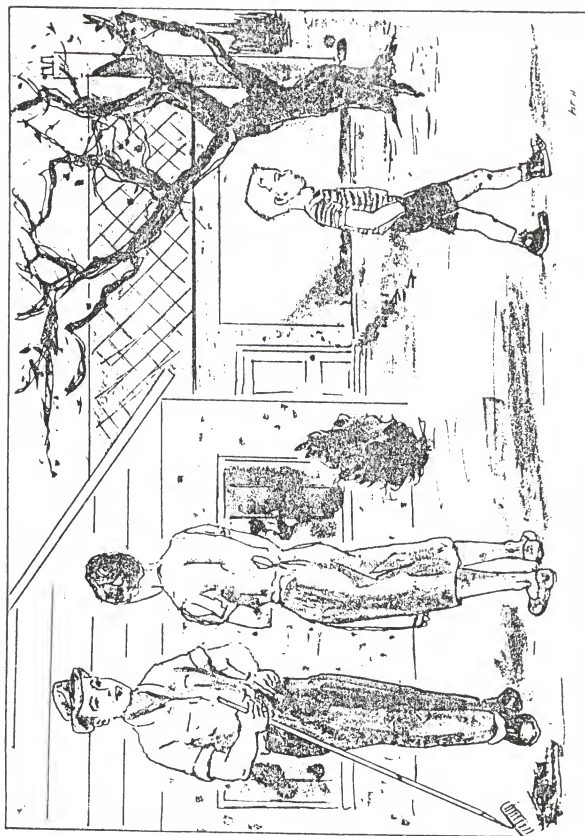














APPENDIX D
GENERAL DIRECTIONS FOR ANALYZING THE PICTURE STORIES

Introduction and Rationale

You are going to participate in a study designed to compare the self-concept of sixth grade Puerto Rican children of low and middle socio-economic status using two different kinds of measures. One measure is obtained through the use of a self-report and the other through the use of an inferential technique. Your participation in this study will be related with the latter.

The underlying assumption in using the inferential technique to measure the self-concept is that greater insight into a person's self-perceptions is afforded through inference based on behavior than can result from his own self-ratings. For the purpose of this study, perceptions are defined as the personal meanings an individual derives from experience because of the unique interpretations he makes. It is assumed that a person's actions are determined by the way he perceives a situation.

Perception as a psychological process cannot be directly observed. However, since behavior is a function of perception, it is possible to arrive at some knowledge of a subject's personal point of view by making inferences from his behavior.

This study employed the picture story technique to elicit the behavior from which the self-concepts of boys and girls will be inferred. Ten ambiguous pictures of children in a variety of home and school scenes were shown to the subjects. They were asked to tell a story

about each picture indicating what was happening, what led up to the scene and what would happen in the future. It was assumed that each subject projects himself into the scene, identifying with a character. The pictures were vague and consequently would arouse many different kinds of reactions. The nature of the pictures and the way in which they were presented would not clearly indicate the purpose of the test or the way in which the responses would be interpreted.

Basic to the method of analyzing the story content and inferring the self-concept is the assumption that individuals tend to see themselves as more or less adequate in the various areas of their phenomenal self. The present research is concerned with certain perceptions that sixth grade Puerto Rican children hold of themselves in four main areas: (1) General Self; (2) Social Self-peers; (3) School-academic; (4) Home parents. At this point it is necessary to present in some detail what is meant by each of these perceptual areas.

1. General Self

The adequate child sees himself as able to deal with his problems. He feels as a person generally sufficient to cope with his world effectively. He perceives himself as a person of consequence, dignity, and worthy of respect.

The inadequate child sees himself as unable to deal with his problems. He feels as a person who cannot cope with his world effectively. He perceives himself as a person of little consequence, who can be overlooked, discounted and whose dignity does not matter.

2. Social Self-peers

The adequate child feels generally acceptable and likeable to other boys and girls. He sees himself as fairly treated and trusted by other children. He feels a sense of belonging with other children.

The inadequate child feels generally unacceptable and not liked by other boys and girls. He sees himself as unfairly treated and distrusted by other children. He feels alienated from others.

3. School-academic

The adequate child feels generally able to accomplish his work in school. He feels accepted by his teachers and generally satisfied with his own school performance.

The inadequate child feels generally unable to accomplish his work in school. He feels unaccepted by his teachers and generally unsatisfied with his school performance.

4. Home-parents

The adequate child feels he is liked and understood by his parents. He regards himself as fairly treated and trusted by them. He perceives himself with his parents and other members of the family rather than apart or alienated from them.

The inadequate child feels his parents do not like and understand him. He believes that he does not get along with them, that his parents treat him unfairly and that they distrust him. He feels apart or alienated from his parents.

Description of the Task

You are requested to study carefully the stories produced by certain number of sixth graders who participated in this research. Then you are to rate the perceptual areas of each subject in a seven point scale.

Equipment supplied. You are supplied with the following equipment:

1. Tape recorder for playback of tapes
2. Copies of the scale to be used in rating the subjects
in terms of the self-concepts
3. Tape cassettes containing the responses of certain
number of children to the picture story test
4. A set of the pictures to which the subjects responded.

Analysis of the stories. The unit for rating will be the whole set of stories of each subject. The 10 stories of each subject will be heard

and rated on one perceptual area at a time. Ratings will be made by area rather than by subject, that is, all the subjects will be rated on the same perceptual area before proceeding to the next one. This makes possible to maintain a more uniform standard for judging the content of the stories for each area and to prevent the halo effect that may result from rating each set of stories on all four perceptual areas of each subject at once.

The initial step in analyzing the stories should be to listen to all of a subject's stories and to study each picture as the child tells his story. This will give you an impression of the general tone of the individual's responses.

On the second play-through the objective should be to arrive at some impressions about the narrator's self-perceptions as adequate or inadequate in a perceptual area. During this playthrough it may be desirable to stop the machine and replay portions of the tape if necessary.

When you feel that you have the necessary insight into the child's perceptions of self, rate him on the inferred self-concept scale.

Rating the perceptual areas. The rating scale contains the four perceptual areas that are considered in this study. Each perceptual area will be rated in terms of a seven point scale with the high end representing the positive extreme (adequate) and the low end indicating a relative lack of the perceptual characteristics of that given area (inadequate).

In order to decide the exact point on the scale to assign to an individual, keep in mind that the extreme positive or negative positions

(7 and 1) should be marked if your impressions regarding the child's feelings of adequacy or inadequacy are quite strong. The intermediate positive or negative points (6, 5, 3, 2) should be marked if your impressions are somewhat less pronounced. The mid-point should be utilized only after careful deliberation does not allow you to score one of the other six positions. The essential thing is that each area be considered carefully in terms of the inferences you have made and the basic question is: How this individual feels about himself in this particular area of the self?

Scoring. Scores are estimated in the following way. You assign a value to each area corresponding to the position in which it was rated. For example, a rating of seven, the most favorable rating possible on any area is assigned the value seven; a rating of six is assigned a value of six and so on down to one, the least favorable rating possible. Then the values assigned to each area are added and a total score is obtained which represents the score for the inferred self-concept.

APPENDIX E
INFERRED SELF-CONCEPT SCALE

Rater Number _____

Subject Number _____

DIRECTIONS

Encircle the number that corresponds to your inference on each of the dimensions listed and then write it in the blank to the right.

GENERAL SELF

Inadequate	1	2	3	4	5	6	7	Adequate	_____
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SOCIAL SELF-PEERS

Inadequate	1	2	3	4	5	6	7	Adequate	_____
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SCHOOL-ACADEMIC

Inadequate	1	2	3	4	5	6	7	Adequate	_____
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HOME-PARENTS

Inadequate	1	2	3	4	5	6	7	Adequate	_____
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BIBLIOGRAPHY

- Battle, E. S. and Rotter, J. B. Children's feelings of personal control as related to social class and ethnic group. *Journal of Personality*, 1963, 31, 482-490.
- Benton, J. A. *Perceptual characteristics of episcopal pastors*. Doctoral dissertation, University of Florida, 1964.
- Biehler, R. F. *Psychology applied to teaching*. Boston: Houghton Mifflin Company, 1974.
- Black, M. H. Characteristics of the culturally disadvantaged child. *The Reading Teacher*, March 1965, 465-470.
- Carter, T. P. The negative self-concept of Mexican-american students. *School and Society*, 1968, 96, 217-219.
- Cicirelli, V. G., Granter, R., Schemmel, D., Cooper, W., Helms, D., Hothouse, N. and Nehls, J. Measures of self-concept, attitudes and achievement motivation of primary grade children. *Journal of School Psychology*, 1971, 9, 383-392.
- Clark, K. B. Educational stimulation of racially disadvantaged children. In A. H. Passow (Ed.) *Education in depressed areas*. New York: Bureau of Publications, Teachers College, Columbia University, 1963.
- Combs, A. W. A perceptual view of the adequate personality. In A. W. Combs (Ed.) *Perceiving, behaving and becoming: A new focus*. Washington, D.C.: Association for Supervision and Curriculum Development, National Education Association, 1962.
- Combs, A. W. (Ed.) *Florida studies in the helping professions*. (University of Florida Social Science Monograph No. 37), University of Florida Press, Gainesville, Florida, 1969.
- Combs, A. W., Avila, D. L. and Purkey, W. W. *Helping relationships: Basic concepts for the helping professions*. Boston: Allyn and Bacon, Inc., 1971.
- Combs, A. W. and Snygg, D. *Individual behavior: A perceptual approach to behavior*. New York: Harper and Row, Publishers, 1959.
- Combs, A. W. and Soper, D. W. The self, its derivative terms and research. *Journal of Individual Psychology*, 1957, 13, 135-145.
- Combs, A. W. and Soper, D. W. The perceptual organization of effective counselors. *Journal of Counseling Psychology*, 1963a, 10, 222-227.

- Combs, A. W. and Soper, D. W. *The relationship of child perceptions to achievement and behavior in the early school years*. Cooperative Research Project no. 418, University of Florida, 1963b.
- Combs, A. W., Soper, D. W. and Courson, C. C. The measurement of the self-concept and self-reports. *Educational and Psychological Measurement*, 1963, 23, 493-500.
- Cooley, W. W. and Lohnes, P. R. *Multivariate procedures for the behavioral sciences*. New York: John Wiley and Sons, Inc., 1962.
- Coopersmith, S. *The antecedents of self-esteem*. San Francisco, California: W. H. Freeman and Company, 1967.
- Crescioni, L. H. La percepción de la imagen propia en el niño y adolescentes puertorriqueños. *Pedagogía*, 1965, 13, 27-37.
- Cronbach, L. J. *Essentials of psychological testing*. New York: Harper and Row Publishers, 1970.
- Deutsch, M. The disadvantaged child and the learning process. In A. H. Passow (Ed.) *Education in depressed areas*. New York: Bureau of Publications, Teachers College, Columbia University, 1963.
- Deutsch, M. (Ed.) *The disadvantaged child*. New York: Basic Books, 1967.
- Dickman, J. F. *The perceptual organization of person oriented versus task oriented student nurses*. Doctoral dissertation, University of Florida, 1967.
- Fullerton, W. S. *Self-disclosure, self-esteem and risk taking*. Doctoral dissertation, University of California, Berkeley, 1972. Cited by the Self Esteem Institute, *Self Esteem Inventory* (Coopersmith, 1967). Unpublished manuscript, Self Esteem Institute, San Francisco, California.
- Getsinger, S., Kunce, J. T. Miller, D. E. and Winberg, S. R. Self-esteem measures and cultural disadvantage. *Journal of Consulting and Clinical Psychology*, 1972, 38, 149.
- Goldberg, M. L. Factors affecting educational attainment in depressed urban areas. In A. H. Passow (Ed.) *Education in depressed areas*. New York: Bureau of Publications, Teachers College, Columbia University, 1963.
- Gooding, C. T. *The perceptual organization of effective teachers*. Doctoral dissertation, University of Florida, 1964.
- Graves, W. A. *Multivariate investigation of professed and inferred self concepts of fifth and sixth grade students*. Doctoral dissertation, University of Florida, 1972.
- Hawk, T. L. Self-concept of the socially disadvantaged. *The Elementary School Journal*, 1967, 67, 196-206.

- Hollingshead, A. B. *Two factor index of social position*. Unpublished manuscript, 1957.
- Hollingshead, A. B. and Redlich, F. C. Social stratification and psychiatric disorders. *Psychological Review*, 1953, 18, 163-169.
- Huck, S. W. A note on the correct interpretation of significant F in discriminant function analysis. *Science Education*, 1973, 57, 413-415.
- Huck, S. W., Cormier, W. H. and Bounds, W. G. *Reading statistics and research*. New York: Harper and Row Publishers, 1974.
- Kerensky, V. M. Reported self-concept in relation to academic achievement in an inner-city setting. *Dissertation Abstracts International*, 1967, 27A, 2325.
- Kimball, O. *Development of norms for the Coopersmith SEI: Grades four through eight*. Doctoral dissertation, Northern Illinois University, 1972. Cited by the Self-Esteem Institute, *Norms for the Coopersmith Self Esteem Inventory*. Unpublished manuscript, Self Esteem Institute, San Francisco, California, March 1974.
- Krugman, M. The culturally deprived child in school. *N.E.A. Journal*, April, 1961, 23-24.
- Lewis, O. *La vida: A Puerto Rican family in the culture of poverty*. New York: Random House, 1966.
- Long, B. H. Critique of Soares and Soares' self-perception of culturally disadvantaged children. *American Educational Research Journal*, 1969, 6, 710-711.
- Long, B. H. and Henderson, E. H. Self-social concepts of disadvantaged school beginners. *Journal of Genetic Psychology*, 1968, 113, 41-51.
- Many, M. The relationship between anxiety and self-esteem in grades four through eight. *Dissertation Abstracts International*, 1973, 34A, 1134.
- Matteson, R. Adolescent self-esteem, family communication and marital satisfaction. *Journal of Psychology*, 1974, 86, 35-47.
- McDaniel, E. L. Relationships between self-concept and specific variables in a low-income culturally different population. *Final Report on Head Start Evaluation and Research: 1966-67*, U.S. Department of Health, Education and Welfare, Office of Education, Washington, D.C., August 31, 1967 (ERIC ED 019 124).
- Michael, J. J., Plass, A. and Lee, Y. B. A comparison of the self-report and the observed report in the measurement of the self-concept: Implications for construct validity. *Educational and Psychological Measurement*, 1972, 32, 481-483.

- Morlan, J. and Ramonda, R. The disadvantaged child and his culture. In S. W. Tiedt (Ed.) *Teaching the Disadvantaged Child*. New York: Oxford University Press, 1968.
- Moses, E. G., Zirkel, P. A. and Greene, J. F. Measuring the self-concept of minority group pupils. *The Journal of Negro Education*, 1973, 42, 93-98.
- Mussen, P. and Beytagh, L. La industrialización, la crianza del niño y la personalidad infantil. *Revista de Ciencias Sociales*, 1968, 12, 195-219.
- Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K. and Bent, D. H. *Statistical package for the social sciences*. New York: McGraw-Hill Book Company, 1975.
- Parker, J. *The relationship of self-report to inferred self-concept in sixth grade children*. Doctoral dissertation, University of Florida, 1964.
- Parker, J. The relationship of self-report to inferred self-concept. *Educational and Psychological Measurement*, 1966, 26, 691-700.
- Passow, A. W. Early childhood and compensatory education. In A. H. Passow (Ed.) *Reaching the disadvantaged learner*. New York: Teachers College Press, Columbia University, 1970.
- Pendergrass, P. W. *The relationship of perceived threat to adolescent student's feelings of adequacy in the classroom*. Doctoral dissertation, University of Florida, 1971.
- Pigge, F. L. Children and their self-concepts. *Childhood Education*, 1970, 47, 107.
- Purkey, W. W. *The self-concept and school achievement*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.
- Riesmann, R. *The culturally deprived child*. New York: Harper and Row Publishers, 1962.
- Rogers, C. *Client-centered therapy*. Boston: Houghton Mifflin, 1951.
- Rosenberg, M. *Society and the adolescent self-image*. Princeton, N. J.: Princeton University Press, 1965.
- Samuels, S. C. An investigation into the self-concepts of lower and middle class black and white kindergarten children. *Journal of Negro Education*, 1973, 42, 467-472.
- Scott, L. J. An analysis of the self-concept of seventh grade students in segregated-desegregated public schools of Oklahoma City. *Dissertation Abstracts International*, 1969, 30A, 1793.

- Sears, P. S. and Sherman, V. S. *In pursuit of self-esteem*. Belmont, California: Wadsworth Publishing Company, 1964.
- Simon, W. E. Some sociometric evidence for validity of Coopersmith's Self-Esteem Inventory. *Perceptual and Motor Skills*, 1972, 34, 93-94.
- Simon, W. E. and Bernstein, E. The relationship between self-esteem and perceived reciprocal liking: A sociometric test of the theory of cognitive balance. *Journal of Psychology*, 1971, 79, 197-201.
- Soares, A. T. and Soares, L. M. Self-perceptions of culturally disadvantaged children. *American Educational Research Journal*, 1969, 6, 31-45.
- Soares, A. T. and Soares, L. M. Critique of Soares and Soares "Self-perceptions of culturally disadvantaged children" A reply. *American Educational Research Journal*, 1970, 7, 631-635.
- Spatz, K. C. and Johnston, J. O. Internal consistency of the Coopersmith Self-Esteem Inventory. *Educational and Psychological Measurement*, 1973, 33, 875-876.
- Super, D. E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. L., and Warnath, C. F. *Vocational development: A framework for research*. New York: Columbia University Bureau of Publications, 1957.
- Taylor, J. and Reitz, W. *The three faces of self-esteem*. Department of Psychology, The University of Western Ontario, Research Bulletin #80, April 1968. Cited by the Self-Esteem Institute, *Self-Esteem Inventory* (Coopersmith, 1967). Unpublished manuscript, Self-Esteem Institute, San Francisco, California.
- Trowbridge, N. Effects of socio-economic class on self-concept of children. *Psychology in the Schools*, 1970, 7, 304-306.
- Trowbridge, N. Self-concept and socio-economic status in elementary school children. *American Educational Research Journal*, 1972, 9, 525-537.
- Usher, R. H. *The relationship of perceptions of self, others and the helping task to certain measures of college faculty effectiveness*. Doctoral dissertation, University of Florida, 1966.
- Walsh, A. M. *Self-concepts of bright boys with learning difficulties*. New York: Bureau of Publications, Teachers College, Columbia University, 1956.
- Wylie, R. C. Children's estimates of their schoolwork ability, as a function of sex, race and socio-economic level. *Journal of Personality*, 1963, 31, 203-224.

- Wylie, R. C. *The self-concept: A review of methodological considerations and measuring instruments*. Lincoln, Nebraska: University of Nebraska Press, 1974.
- Woolner, R. B. Self-concept: what is it? *The Instructor*, March, 1971, 80, 60.
- Yamamoto, K. (Ed.) *The child and his image*. New York: Houghton Mifflin Company, 1972.
- Ziller, R. C. *The social self*. New York: Pergamon Press, Inc., 1973.
- Ziller, R. C., Hagey, J., Smith, M. D. C. and Long, B. H. Self-esteem: A self-social construct. *Journal of Consulting and Clinical Psychology*, 1969, 33, 84-95.
- Zirkel, P. A. Self-concept and the "disadvantage" of ethnic group membership and mixture. *Review of Educational Research*, 1971, 41, 221-225.
- Zirkel, P. A. and Moses, E. G. Self-concept and ethnic group membership among public school students. *American Educational Research Journal*, 1971, 8, 253-265.

BIOGRAPHICAL SKETCH

Andres A. Collazo was born March 9, 1944, in Cayey, Puerto Rico. He attended public schools in his hometown, graduating from Cayey High School. He received a Bachelor of Arts in Education degree with a major in science and mathematics from the University of Puerto Rico in May, 1964.

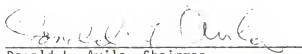
After graduation he was employed as a chemistry teacher at Cayey High School where he taught for three years. During the academic year of 1967-68 he went to the Medical Science Campus of the University of Puerto Rico where he received the degree of Master in Public Health Education. Immediately after this he started working as Zone Supervisor of the School Health Program of the Department of Education in Puerto Rico. While working in this program, he continued studies in psychology at the University of Puerto Rico.

In January, 1971, he took an instructor position at the College of Education at the University of Puerto Rico where he taught educational psychology. In June, 1971, he received the degree of Master of Education with a major in psychology. He continued teaching educational psychology and health education at the University of Puerto Rico until he enrolled for doctoral studies at the University of Florida in September, 1974.

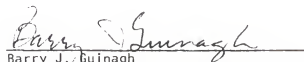
During the academic year of 1975-76 he worked as a Graduate Research Assistant at the Division of Curriculum and Instruction, University of Florida.

Upon completion of his doctoral studies, he will return to Puerto Rico and continue working at the University of Puerto Rico.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Donald L. Avila, Chairman
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

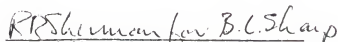

Barry J. Guinagh
Associate Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


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Professor of Psychology

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate Council, and was accepted as partial fulfillment for the degree of Doctor of Philosophy.

March, 1977


Dean, College of Education

Dean, Graduate School